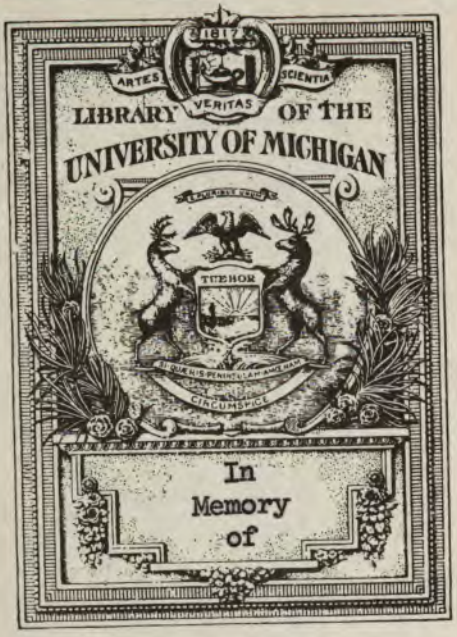

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INTERNATIONAL TRADE

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INTERNATIONAL TRADE

A STUDY OF THE ECONOMIC ADVANTAGES OF COMMERCE

BY

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PREFACE

In this book, originally published as Part II of my *International Trade and Exchange*, I have aimed to cover the general theory of international trade and government interference with such trade. The book begins with a discussion of the gains of trade, whether the trade is between countries or wholly within a single country. Attention is then turned to the conditions determining the share which each of two or more countries gets from trade between them. The remainder of the book is devoted to a consideration of revenue tariffs, bounties, navigation acts, government construction of canals for the free use of commercial interests, land grants in encouragement of railroad building, etc. Proposals for such indirect encouragement to commerce as is afforded by the last two policies, are perhaps no less frequent and insistent than are proposals for its direct encouragement by means of bounties or for its discouragements by means of protective tariffs. Analysis of the effects to be expected from such policies may be as important, therefore, as analysis of the effects of a protective tariff or bounty system.

I have presented the subjects of international trade, protective tariffs, etc., in terms of money prices as well as more generally. To many students, accustomed to think in terms of money prices, even in terms of mercantilism, such a method of presentation may be the

only convincing one. In the case of protective tariffs, not only is it shown in a general way that protection tends to divert a country's industry out of its natural channels, but, in addition, the effects of protection on national wealth are traced by showing that money prices are raised by this policy more than are average money incomes. It is pointed out that the tariff has two effects on prices, primary and secondary. In the first place, the prices of protected goods are directly raised by the tariff, because of the exclusion of cheaper foreign goods. This rise applies only to protected goods, not to money incomes. Next, protection, since it decreases imports, increases the quantity of money in the protectionist country; and this increase of money brings a secondary rise of prices affecting protected goods, unprotected goods and money incomes. The rise of money incomes compensates for the secondary rise of general prices but *does not compensate for the original rise of prices of the protected goods.* Therefore, average prosperity is decreased. In the same way, the effects of protection on wages and on land rent are set forth in general terms and in terms of money prices.

Throughout, I have endeavored to keep in view the requirement of clearness, although not avoiding discussion of difficult points. To this end, concreteness has been given to the arguments presented, by the use of both hypothetical and real examples; and the main conclusions of each chapter have been summarized in the last section of the chapter. The more analytical and controversial discussions have been, in large part, consigned to footnotes. I have sought thus to write a book which can serve as a text, but which may be also not without interest, on a few disputed points, to professional economists.

Acknowledgment should be here made of various courtesies extended, and of the aid rendered by a number of friends who have done much toward removing errors of statement and expression and in suggesting critical and illustrative additions. Professor G. S. Callender, of the Sheffield Scientific School, Yale University, to whom I submitted the manuscript, has made a number of valuable criticisms and suggestions. I am under obligation, also, for critical reading of a number of the more important chapters of the book, to Professors Irving Fisher, Clive Day, and H. C. Emery of Yale College and to Professor John Bauer of Cornell University. Finally, I would acknowledge here the obligation I am under to my wife, who has given me valuable assistance in the gathering of data, in reading and criticising the manuscript in its various stages of completion, and in correcting the proof.

HARRY GUNNISON BROWN.

MILFORD, CONNECTICUT.

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CHAPTER I

PRICES, INTERCOMMUNITY TRADE, AND THE GAINS OF TRADE

§ 1

The Relation of Prices in One Country to Prices in Another

THROUGH the influence of trade, the price in any country of any special kind of goods tends toward equality with the price of the same goods in other countries with which the first one trades. Cost of carriage, of course, must enter into the selling price of any kind of goods. Due to the natural productivity of land, greater efficiency of labor, better capital equipment, or other cause, some goods will probably be produced with less relative cost in one country than in the others trading with it. These goods will tend to be cheaper in the country having such an advantage, and to be sold by it to the others. The price of such goods in the other countries cannot, for any length of time, be higher than in the exporting country by much more than the expense of transportation or, if trade is restricted, the expense of transportation plus tariff charges; for if the price is much higher, none of the goods in question will be sold in the country where they are produced, until enough has been sent abroad to more nearly equalize prices. Neither can the price abroad of goods produced under competitive conditions, be less than the price in the producing country

plus cost of transportation and tariffs, if any of the goods at all are sent abroad.[1]

To illustrate, suppose a certain kind of cloth to be selling at wholesale in England for (the equivalent in English money of) $1 per yard. Assuming a transportation and tariff expense of 50 cents a yard, it would sell in Canada, wholesale, for $1.50. Suppose, next, that the Canadian demand raised the Canadian price to $1.75 per yard. If the carrying and tariff costs remained at 50 cents, and the Canadian price $1.75, obviously no one would sell the cloth in England for much less than $1.25. If, on the other hand, the Canadian demand should decrease so that the cloth could not be sold in Canada for more than $1.25, then none of this cloth would be sent from England to Canada unless the English price fell to $0.75. If, because the whole supply had to be sold in England, the price should fall to $0.75 per yard, a surplus might be exported. Otherwise, it would pay better to sell all the cloth in England.

It will be seen that the general level of prices in one country is not by any means necessarily the same as the price level in the other countries with which it trades. If we imagine two countries side by side, with no tariff barriers between them, and with a zero cost of transportation from any part of one to any section of the other, we may say that the price of each commodity in one country must equal, measured in the same standard of value, its price in the other. Obviously, if all prices

[1] Except as goods may be sold cheaper abroad temporarily in order to develop new business, and for other special reasons of very limited application. A tariff protected monopoly will purposely limit its sales at home in order to realize monopoly profits, while selling abroad, where competition must be met, at competitive prices.

are exactly the same, then the general average, the level of prices, must be exactly the same in one country as in the other. In comparing the price levels of two countries, we may take as a unit that amount of each kind of goods, in one of the countries, which sells for $1 (or £1 or some other standard monetary unit). The average price in that country will be $1. We may then learn the price in the other country, of each such unit amount of goods, and take the average of these prices. This gives us the general level of prices in the second country as compared with that of the first.[1] The most satisfactory average is, of course, a weighted one, *i.e.* an average in which each kind of goods is given an importance consistent with the proportionate value of it sold. By the method of averaging here described, it is obvious that, given costless transfer of all goods and services, the average price or price level in the one country would equal the average in the other; for all prices would be exactly the same in each, and an average, weighted or unweighted, must be the same.

As it is, however, the goods which are the special product of each country tend to be lower in that country, and to be higher in other countries, by an amount equal to the cost of transportation and other obstacles in the way of trade. This makes it unlikely that the average of prices in one country will be the same as the average in another country. Thus, wheat may be lower in price in Canada than in England by the cost of transportation. At the same time, cotton cloth may be lower in price in England by the cost of transportation. There

[1] Cf. Fisher's suggestion for comparing the price levels in the same country for two or more years, *Elementary Principles of Economics*, New York (Macmillan), 1912, p. 250.

is no logical reason for assuming that the average of prices (the level of prices) is the same. The lower priced wheat, in Canada, may conceivably have so great an importance as to make the weighted average of prices lower there, despite the higher relative price of cotton cloth. Or cotton cloth, cutlery, shoes, and machinery, all lower in England, may make average prices lower there even though wheat is lower in Canada. Or again, though many articles may be lower in price in England, yet these may be for the most part such things as houses, practically non-transportable, or goods transportable only at such great expense as generally not to be transported. A few things may be lower in Canada by enough to pay for shipment to England. Under these circumstances, average prices will certainly be lower in England although trade may be in perfect equilibrium. A dollar (or its mint equivalent in English money) will buy more in England, yet Canadian money will not flow to England for goods transportable at great expense, in any larger quantity than English money will flow to Canada for a few goods only slightly cheaper in Canada but easily transported. Wheat may be enough lower in Canada to pay for export, and cotton cloth enough lower in England. Everything else may be lower in England, yet not enough lower for shipment to Canada. If this is the situation, the general level of prices in England must be, and must remain, lower than in Canada.

But though the price levels of England and Canada are not, on these hypotheses, the same, they are nevertheless related. The level of prices in England may be continuously lower, but will be lower only to a certain extent. A rise of Canadian prices (the result of gold

discoveries, expansion of bank credit, inflow of gold from the United States, or other cause) will increase the importations by Canada from England, despite transportation and other obstacles, and will tend to raise English prices also, thus leaving the relation between Canadian and English prices substantially as before. Similarly a rise in English prices will affect prices in Canada; and a fall of prices in either country will affect prices in the other.

§ 2

What Prices Tend to be Lower in a Given Country, than Prices of the Same Kinds of Goods in Another Country

It is apparent that prices of all goods are not likely to be lower in one country than in another if transportation and tariff conditions are such as to make any appreciable trade profitable. For unless the cost of transportation, plus other obstacles, is very great, the low prices in the one country will cause flow of gold in that direction. This will continue until the price of some good or goods becomes lower in the previously high price country than in the other.[1] The condition of equilibrium will be realized at a point such that some prices are lower in the one country and some lower in the other. This may be called a moving equilibrium, or an equilibrium such that, other things equal,[2] about the same value of trade would flow in each direction.

[1] This principle is expressed with great clearness in Taussig's *Principles of Economics*, New York (Macmillan), 1911, Vol. I, pp. 486, 487.

[2] A gold mining country may export a surplus of gold and import a surplus of other things, but exports and imports as a whole, none the less, tend to be equal. A country which has large investments abroad will usually import more than it exports of goods in general. See Part I, Ch. V, § 7.

The conclusion that some prices will be lower in one country and some prices in others, is true in principle even if the countries trading have different monetary standards, *e.g.* if one country has a gold and the other a paper standard. We saw, in the last chapter, that whatever the relation or the non-relation of the monetary standards of two countries, trade might take place between them; and that the flow of this trade in one direction would tend, in the long run, to equal the flow in the other.[1] Any tendency to an excess flow in one direction would be self-terminating. When the position of equilibrium was established, some prices would be the lower in each country in the sense that the money of either country would, through the process of gold shipment or through the mechanism of the exchanges, buy more of some goods in the other country than at home.

What conditions determine which prices shall be lower in one country than in another or others? The answer is: those goods are lower in price in any country, for the production of which it has relatively great advantages. These advantages may lie in geographical position, may depend upon soil and climate or the possession of certain mines or other natural resources, or may, in certain lines of activity, depend upon high acquired efficiency of labor. Those goods in the production of which a country has a relative advantage and which, therefore, it sells at a low money price, will, of course, assuming trade to be free, be the things it exports. The people of other countries will avail themselves of the opportunity to buy these goods cheaply. The advantages for producing them will mean a large amount of labor and capital specializing in their production in the

[1] See Part I, Ch. VI, §§ 6, 7, 8, 9.

exporting country. Since the low prices at which these goods are sold result from the relative advantages in that country for their production, therefore these low prices do not signify that the industries are unprofitable. So much can be produced with a given amount of labor that, even at low prices, the yield to industry is high.

Similarly, the existence of a high level of money wages in any country, does not mean that in such a country some goods cannot be produced, and exported, at low money cost. The United States may have money wages twice as high, per day, as England. Yet if the American agricultural laborer can produce over twice as much wheat per day, because of the extent of good agricultural land, as can be produced in England with the same labor, then the money cost of the American wheat will be no greater and may be appreciably less per bushel. In selling his wheat in the foreign market, the farmer is not primarily concerned with the matter of how much he has to pay his men by the day. He is greatly concerned with the matter of what he must pay them per bushel produced. It is obvious, therefore, that a productive country can have at the same time low prices of goods which it exports, and high wages to the producers of those goods.

Neither is it essential, in order for a country to export certain goods at a low price, that it should be able to produce those goods more efficiently, *i.e.* with less labor expenditure, than other countries. All that is necessary is that for the production of such goods, its disadvantages shall be less than for the production of other goods. The converse of this proposition is that all goods will not necessarily be produced at the lowest price, in the country where they can be produced with

least labor. Even if the United States can produce woolen cloth with less labor expenditure than England, the advantage of the United States in the production of steam and electric engines and other machinery, may be still greater. If a given amount of labor in the United States will produce 10 per cent more woolen cloth or 100 per cent more engines and machinery than in England, then the United States gains more by producing the engines and machinery and importing the cloth. The price at which producers in the United States could afford to sell machinery, etc., would therefore be comparatively low, while it would require a relatively high price of woolen cloth to induce Americans to manufacture it. On our assumption, American labor and capital can secure more money, in the English market, for the product of a day's labor in making machinery than for the product of a day's labor in a cloth factory, and still undersell English machine makers. On the other hand, English labor and capital can get more money by selling, in the United States, the product of a day's labor in the cloth factory, than for the product of a day's labor in an English machine making factory, and yet undersell American cloth. If the United States is absolutely more productive in both lines, as well as in most or all others, it might be better, economically, for the people of England to migrate to the United States. But so long as they choose to remain in England, they will be better off if they specialize in the production of cloth.

It appears, therefore, that under conditions of entire free trade, there would be a high degree of geographical specialization; and that each industry would be located where the facilities for it were *relatively* the best, all things, including transportation cost, considered. In

fact, of course, the location of industries is considerably affected by tariffs. The higher, and the greater in number, are these trade restrictions, the more largely is industry turned from its natural channels. If there were a sufficiently high tariff around the borders of Maine, cotton could perhaps be raised in Maine hothouses. Similarly, a high tariff levied by South Carolina on steel rails brought in across its boundaries, might encourage the manufacture of steel rails for use within the state, in the midst of the South Carolina rice fields, with iron brought from the Lake Superior ore regions and coal imported from Pennsylvania.

§ 3

Trade between Two Communities when Each has an Absolute Advantage over the Other, in One or More Lines of Production

Let us now illustrate how the case stands as to prices and gains from trade when two communities engage in trade, each having an absolute advantage in one line of activity over the other. We shall suppose the trade to be between two of the states of our own country, South Dakota and Indiana. South Dakota we shall take as an example of a wheat-producing section and Indiana as an example of a corn-producing section. Suppose that one day's labor in South Dakota, of one man, produces 2 bushels of wheat *or* 1 bushel of corn, while in Indiana the same amount of labor produces 1 bushel of wheat *or* 2 bushels of corn. Assume, also, no cost of transportation and no tariff interferences with trade. If wheat sells in South Dakota for $1 per bushel, then a day's labor in the wheat fields will yield $2. No

one, therefore, will be satisfied to produce corn in South Dakota for less than $2 a day. But since only 1 bushel of corn can be produced, $2 reward will necessitate a price of $2 a bushel. Whatever the price of wheat, corn must sell, if produced in South Dakota, at double that price per bushel; and therefore, if we assume $1 per bushel for wheat, corn must sell at $2. No one in South Dakota will produce it for appreciably less. If it can be imported for less, it will be.

With Indiana the case is reversed. Corn, by our assumption, is produced there the more easily. If the corn can be sold for $1 a bushel, it will give producers $2 a day. Naturally they will not care to produce wheat for a less return, and therefore, if Indiana is less adapted to wheat production, they must get a higher price ($2 a bushel) in order to encourage its production in Indiana.

Both states gain by the trade. South Dakota can produce in two days' labor, 2 bushels of wheat at, say, $1 per bushel and 1 bushel of corn at $2 a bushel, a total of 3 bushels or $4 worth. Indiana can produce in two days of labor, 1 bushel of wheat at $2 and 2 bushels of corn at $1 a bushel, making a total of 3 bushels or $4 worth. If they trade, each state can specialize. South Dakota can produce in two days of labor, 4 bushels of wheat at $1 per bushel, or $4 worth; while Indiana can produce with two days of labor available, 4 bushels of corn at $1 each or $4 worth. Trade between the two states will make it possible (assuming an even exchange) for each state to get, from its two days of labor, 2 bushels of corn *and* 2 bushels of wheat, instead of 2 of one cereal and 1 of the other. There will be no gain in money values. In either case the total is $4 worth for each state. But there will be a considerable differ-

ence in what the money will buy. In the case we have assumed, money incomes will be the same with the trade as without it,[1] but the money "cost of living" will be appreciably reduced; $4 will buy a total of 4 bushels instead of only 3.

It is clear that, under our assumed conditions, Dakota wheat and Indiana corn could and would be sold the more cheaply; that, therefore, the people of Indiana would naturally buy Dakota wheat at a lower price (*e.g.* $1) rather than Indiana wheat at a higher (*e.g.* $2), while the people of South Dakota would choose to buy corn from Indiana; also that this arrangement, so obviously to the individual interests of the persons concerned, would make both states the richest. Is it necessary to point out that what is true as regards two states, territories, or sections under the same general government, is also true of two different nations? If Indiana and South Dakota gain by such a trade when united as parts of one nation by the government at Washington, it is reasonable to suppose that they would gain in just the same way and to the same extent if each were a separate nation. And in an exactly analogous way, the United States gains by trade with Canada.

§ 4

Trade between Two Communities or Countries when One is More Productive than the Other in Several or in All Lines, but has a Greater Advantage in One Line or in a Few Lines than in the Rest.

Let us next illustrate the relations of money prices, and the gains from trade, when one country or community

[1] See, however, Ch. IV (of Part II), § 2.

has an advantage over another in several or in all lines, but a greater advantage in one than in the others. Assume that in Canada one man's labor for a week will produce 20 bushels of wheat or 14 yards of linen cloth, while in Ireland, a week's labor of one man will produce 6 bushels of wheat or 10 yards of cloth. Ireland is at a disadvantage in both lines, but her disadvantage is less in linen manufacture, and Canada's advantage is greater in wheat production. Both gain if Ireland produces linen and Canada produces wheat and they trade. Without trade, two weeks of labor in Canada, equally divided, would produce 20 bushels of wheat *and* 14 yards of linen. In Ireland, two weeks of labor would produce 6 bushels of wheat *and* 10 yards of linen. Similarly, four weeks of labor in Ireland would produce 12 bushels of wheat *and* 20 yards of linen. Suppose, now, that they trade, and that a bushel of Canadian wheat buys a yard of Irish linen. Then Canada can produce, in two weeks, 40 bushels of wheat, and, by trading half of it for linen, have 20 bushels plus 20 yards, instead of 20 plus 14. Ireland can produce in two weeks 20 yards of linen, or in four weeks, 40 yards. By trading half of this linen for wheat, Ireland will have 20 yards plus 20 bushels instead of 20 plus 12, as a reward for four weeks' work. On our present hypothesis, Ireland must exchange the product of two weeks' work with the product of one week of work in Canada, yet gains more by so doing than can be gained by refraining from the exchange of goods.

That, in the absence of trade restrictions or excessive cost of transportation, such trade will automatically take place, becomes evident so soon as we ask what prices will be charged by the producers in each country.

If Canadians are able to produce wheat for $1 a bushel (and, therefore, $20 a week), they will, of course, be unwilling to produce linen for any smaller weekly return, *i.e.* for less than $20 for 14 yards, or $1.43 a yard. If linen can be imported from Ireland for less than $1.43, say for $1 a yard, Canadian wheat producers will buy it from Ireland, and would-be Canadian linen manufacturers will find more profitable employment in wheat raising.

On the other hand, Irish producers, if selling linen to Canada at $1 a yard, will be earning only $10 a week, though considerably more than they could earn producing 6 bushels of wheat at $1 a bushel. To induce an Irish linen worker, under these circumstances, to enter wheat production, would require $10 a week or $1.67 per bushel. Hence, Irish linen producers will prefer to buy wheat in Canada; and, with Canada demanding Irish linen, Irish wheat producers will find a more profitable occupation in making linen. As we have seen,[1] it is altogether probable that some goods will be lower in price in each country than in the other. All prices could not long be lower in either, since the resulting inflow of gold would raise them. While there is no special virtue in the particular prices of $1 a bushel and $1 a yard here assumed for illustration, the conditions of production in each country, as stated in the hypothesis, are such as would make the wheat of Canada and the linen of Ireland the cheaper goods.

Trade between nations, as well as trade between parts of the same nation, results in a gain to both sides, for it makes possible geographical specialization and therefore a more productive employment of the factors of industry.

[1] § 2 of this chapter (I of Part II).

In theoretical discussion, international trade is sometimes separated from intranational trade, because of the fact that labor and capital flow, as a rule, with greater difficulty, from one nation to another.[1] Distance and expense, a strange government, separation from old friends and old associations, unfamiliar customs, different language, different religion, — any or all of these considerations may prevent the free movement of labor from one country to another. Some of them will cause hesitancy in making foreign investments. The argument is that within a nation, labor and capital will move freely to those localities where they receive the largest return. If Connecticut were more productive in every way[2] than Massachusetts, then labor and capital from Massachusetts would flow freely into Connecticut until conditions[3] were equalized, until the greater crowding of Connecticut and the less crowding of Massachusetts in comparison with resources, made labor and capital no more productive in the former than in the latter state. If Massachusetts had superiority in some lines and Connecticut in others, they would trade; while if Connecticut were superior in all lines, Massachusetts people would largely migrate. But if labor in the United States is more productive than in England, even in all lines, most of the English people may nevertheless prefer to stay at home. They will then simply produce those things in which their disadvantage is least. There is really no difference in principle between international and intranational trade, as such. In any case there is some immobility of labor and capital. In any case a sufficient inducement will at least partly overcome

[1] See Mill, *Principles of Political Economy*, Book III, Ch. XVII, § 1.
[2] At the margin of production.
[3] At the margin.

the immobility, — witness the flow of Italian, Greek, and Polish labor into the United States. So the difference is one of degree and not one of kind. Also, such difference as exists may be as marked between widely separated parts of the same nation or empire, *e.g.* Maine and Montana, or Ireland and Canada, as between different nations, *e.g.* Germany and Austria. In either case, so long as labor and capital remain where they are, specialization is worth while.

§ 5

Summary

In this chapter we have discussed trade from the standpoint of relations of prices and price levels, location of industries, and the gains of trade. Through the influence of trade, the price in any country of any kind of goods tends towards equality with the price in other countries. The difference will not much exceed cost of carriage plus tariffs, etc. As a consequence, the price level of one country is related, if they have a common value standard, *e.g.* gold, to the price level of other countries, but is unlikely to be the same. The prices of some goods are lower in one country and the prices of other goods are lower in other countries, according to what each country can produce with greatest relative advantage.

If a country has great advantages for production in any line, it can produce in that line with great profit and can pay high wages, while yet selling abroad at low prices, the goods so produced. It is not necessary in order that a country shall export certain goods at a low price, that it shall be able to produce those goods with

less effort than their production would require elsewhere; but only that its disadvantage shall be less in that line than in others. On the other hand, if one country has an advantage over another in nearly all lines, but a greater advantage in some lines than others, it gains most by specializing in those lines where its advantage is greatest. Under conditions of free trade, there would be, then, a large amount of geographical specialization, each country devoting its energies to those lines where its productive capacity is relatively the greatest. Industry is turned the more from the lines it would otherwise follow in each country, the more widely and intensively restriction is followed. The gains from trade, when each of two communities has an absolute advantage over the other, and when each has a relative advantage in some line, were illustrated by hypothetical figures.

The distinction sometimes made between international and intranational trade was referred to, viz., that in the latter case, greater advantages of one community in all lines would cause movement of population, while in the former, immobility of labor and capital is more in evidence. In the former case (that of international trade), therefore, differences in *relative* advantages may sometimes be the principal basis of trade. But it was pointed out that this distinction is but a distinction in degree, and that, in any case, political boundaries are often less important factors in immobility of labor and capital than distance and natural barriers.

CHAPTER II

The Rate of Interchange of Goods between Communities

§ 1

The Limits to the Rate at which the Goods of One Country Exchange for Those of Another

We have seen that differences in relative productiveness bring about trade between communities if there are no natural or artificial barriers or if these barriers are not unduly great; and that both communities concerned gain by such trade. How much each community gains depends on the rate at which the goods of one community exchange for those of the other. There are certain limits between which this rate fluctuates, and at a rate of exchange of goods beyond these limits, on either side, there would be no trade.

In showing what these limits are, we will again take trade between Ireland and Canada for illustration. We assumed that a week's labor in Canada would produce 20 bushels of wheat or 14 yards of linen. We saw, also, that if Canadians could get $1 a bushel for wheat, they would be willing to produce linen for $1.43 a yard, but not for less. Since Canadian wheat producers could buy this cloth at home for $1.43 a yard, they would not pay more than $1.43 a yard for linen cloth brought from Ireland. At a price greater than $1.43 per yard, they would cease to buy. If wheat is $1 a bushel, then

a price of $1.43 a yard for linen means that 1.43 bushels of wheat must be sold for each yard of linen bought. This, then, is one of the limits beyond which trade will not go. If Canadians have to give up more than 1.43 bushels of wheat to get a yard of Irish linen, they will lose by the trade; if less, they will gain by it, *i.e.* will get more cloth by exchanging a week's wheat yield for cloth than by devoting a week to cloth production. The same principle applies if the level of prices in Canada is higher or lower. Suppose Canadian wheat could be sold for $2 a bushel. Then the product of a week's labor, 20 bushels, would yield $40. Obviously, therefore, since a week's labor in linen production would yield, in Canada, but 14 yards, a price of $2.85 a yard would be required for its production there. In this case, it would pay Canadians to devote themselves to wheat production and sell their wheat at $2 a bushel, so long as they could buy linen abroad at less than $2.85 a yard. At this price or a greater, they would no longer gain. But we have merely restated our limit in terms of a new price level. At $2.85 a yard, Canadians would be parting with 1.43 bushels of wheat for each yard of linen. Whatever the price level, therefore, so long as 20 bushels requires, in Canada, the same productive effort as 14 yards, the limit beyond which Canadians would refuse to trade is 1.43 bushels per yard. At any less price of linen, Canadians would gain, and the lower the price, the greater the gain to Canada. The principle applies, also, if the trading countries have entirely different monetary standards. If Canada had an inconvertible paper money, there would still be some price in this money, for Irish linen, some amount of this money necessary to buy the foreign exchange or the gold to pay for

Irish linen. It would still be true that a yard of linen produced in Canada would cost 1.43 times as much as a bushel of wheat. If the amount of this money necessary to buy a yard of linen in Ireland should be more than 1.43 times the cost of a bushel of Canadian wheat, the linen would not be imported.

Beyond one limit, Canada would gain nothing and would, therefore, refuse to trade. Beyond the other limit, Ireland would gain nothing and would refuse to trade. The trade, if carried on, must benefit both, and will therefore lie between these limits.[1] Let us see what is the limit beyond which Ireland would not trade. If a week's labor in Ireland will produce 10 yards of linen or 6 bushels of wheat, and linen sells for $1 a yard, then Irish producers would be willing to raise wheat for $1.67 a bushel but not for less. Since the Irish linen manufacturing population can get wheat at home by paying $1.67 a bushel, to pay more for Canadian wheat would involve a loss. If linen is $1 a yard, therefore, Ireland will profit by purchasing Canadian wheat, at any price up to $1.67 a bushel. Beyond that price, Ireland will refuse to buy from Canada, preferring to produce the needed wheat at home. Similarly, if linen made in Ireland should sell for $0.50 a yard, Irish linen makers could be induced to produce wheat for about $0.83 a bushel, and that would, therefore, be approximately the limit to what Irish linen makers would pay for Canadian wheat. In other words, whatever the level of prices, the most that Irish linen makers would pay for a bushel of Canadian wheat would be 1.67 yards of

[1] Mill, *Principles of Political Economy*, Book III, Ch. XVIII, § 2. On the general theory of international values the mathematical reader may be referred to Edgeworth, "The Theory of International Values," *Economic Journal*, Vol. IV, 1894, pp. 35–50, 424–443, 606–638.

linen. At any less price they would gladly buy. At a more unfavorable rate, they would lose, and so would refuse to trade. We have found, then, the two limits to exchange. Between 1.43 bushels for 1 yard and 1.67 yards for 1 bushel, the rate of interchange must lie if there is to be any trade at all. 1.67 yards for 1 bushel is the same as 1 yard for .60 bushels. Therefore, the rate of trade must lie between 1.43 bushels = 1 yard, and .60 bushel = 1 yard. At either limit, all the gain from trade would go to one or the other of the two trading communities. Between these limits, the gain would be divided equally or unequally between those communities.

§ 2

Conditions of Supply and Demand Determining the Exact Rate of Interchange between these Limits

The question which has now to be answered is, what determines the exact rate of interchange — and, therefore, the gain to each country — between these limits. We shall find the determining factor to be relative intensity of demand, or, to use more familiar terms, we shall find the rate to be determined by supply and demand. Returning to our illustration, let us suppose that at a price of $1 a bushel for wheat and $1 a yard for linen, Ireland wants more bushels of wheat from Canada than Canada desires yards of linen from Ireland. In other words, Ireland's intensity of demand for wheat at these prices of wheat and linen, is greater than Canada's intensity of demand for linen. An excess of money would then flow into Canada and prices in Canada would rise, while in Ireland they would fall.[1] This would continue

[1] Throughout this book it should be borne in mind that the rise and fall may be only relative. There may be a general rise of prices, in which case Canadian

until a scale of prices was reached at which trade would be in equilibrium, *i.e.* at which Canada would buy as many dollars' worth of linen as Ireland would buy of wheat.[1] Let us suppose that this stage is reached when the quantity of money in Canada is $\frac{11}{10}$ of its former amount, and in Ireland (having smaller population, wealth, and currency, and being, therefore, affected through an inflow or outflow, by a greater per cent), $\frac{7}{8}$ of its former amount.[2] Then, by the quantity theory of money, prices in Canada would be some 10 per cent higher than previously. Assuming Canadian prices all to rise in this proportion,[3] Canadian wheat would sell for $1.10 a bushel.[4] Canadians would now be unwilling to make linen for less than $\frac{22}{14}$ of this, or $1.57 a yard. On the other hand, Irish linen would sell for

prices rise in greater degree than those of Ireland. Or there may be a general fall of prices, in which case Irish prices fall in greater degree than those of Canada. The important facts for our argument are the *relation* of Canadian to Irish prices and the changes in this relation. The discriminating reader will easily see that none of our essential conclusions are affected by the qualification here set forth.

[1] See Taussig, *Principles of Economics*, Vol. I, New York (Macmillan), 1911, pp. 496, 497. We are here assuming only two kinds of goods, linen and wheat, to enter into the trade.

[2] If the difference in intensity of demand is slight at prices of $1 per bushel and $1 per yard, it is conceivable that equilibrium may be reached by slight changes in the rates of exchange, insufficient to cause a flow of gold. A rate of exchange in Ireland, on Canada, slightly above par, and a rate in Canada, on Ireland, slightly below par, will slightly discourage Irish buying from Canada (or Canadian selling to Ireland) and slightly encourage Canadian buying from Ireland (or Irish selling to Canada).

[3] Since the goods imported from Ireland would not rise in price, but would fall, and since these goods must be handled, in Canada, by middlemen, other prices must rise by more than $\frac{1}{10}$ to make an average rise of that proportion. But if exchanging in Canada the goods brought from Ireland, forms but a small proportion of Canada's total internal trade (and it is not unreasonable to suppose this), then a rise in all other prices of not much more than $\frac{1}{10}$, would make an average rise of fully that.

[4] The circumstances which might prevent wheat from changing to the same extent as many other prices, are discussed in later chapters. For the present, these circumstances are assumed to be non-existent.

$\frac{7}{8}$ of its former price, or about $0.88. Irish workers could now be induced to produce wheat for $\frac{10}{6}$ of this, or about $1.46. This is cheaper than before ($1.67), but Ireland would still gain by consuming Canadian wheat, while Canada would gain more than before by purchasing Irish linen. Canada gets more for her wheat than before and pays less for her cloth, *because* Ireland's demand is the more intense. One bushel of wheat now gets $\$\frac{11}{10}$, and $\$\frac{7}{8}$ buys a yard of linen. One bushel of wheat, therefore, now buys 1.26 yards. Ireland gains less than before, but the trade is still inside the limit of profitableness to Ireland. Ireland gives 1.26 yards for one bushel, while the limit of profitableness is 1.67 yards for one bushel. At the new rate of interchange, Canada may be induced to buy more linen and Ireland prevented from buying so much wheat. Where an equilibrium is found, there will be the rate of trade.[1]

Except as to relations of money prices, the conclusion is the same if the two countries engaged in trade have different monetary standards. If Canada, for example, had paper money not redeemable in gold, an excess demand from Ireland for Canadian wheat could not, it is true, increase Canadian money or Canadian prices; but it would, as we saw in an earlier chapter,[2] change the relative values of Irish and Canadian money, so that buyers in Ireland of Canadian wheat must spend more of their money for each bushel pur-

[1] Mill suggests that there may be several rates satisfying the conditions of equilibrium, *Principles of Political Economy*, Book III, Ch. XVIII, § 6. This might conceivably be the case if the trade were between two nations, each free of competition from others, and if few articles entered into the trade. In the complications of actual commercial relations, it is practically impossible that it should be so.

[2] See Part I, Ch. VI, §§ 7, 8.

chased, and so that Canadians could buy each yard of linen at a cost, in Canadian money, less than before. At some rate of interchange of wheat and linen, the trade would balance.

The rate would be determinable, also, if no money were used and trade were all in the form of direct barter. The country having the more intense demand would, as under existing forms of trade, offer a better rate.[1] We may, if we so desire, say that at present a trade between communities is resolvable into two trades, one of goods for money, and a second of money for other goods. If we so look at the situation, we may further say that each of the two trades, separately, illustrates the effect of relative intensity of demand. The country which is the more anxious to get the goods of the other will show a relatively great intensity of demand for money or gold, giving a comparatively large amount of its own products for a given sum of money; and it will then show its intensity of demand for the desired products of the other country by giving large amounts of money or gold for these.

In more familiar phraseology, we may say that the rate at which linen exchanges for wheat is fixed by supply and demand, and will be such a rate that the supply of wheat offered to Ireland by Canada is equal to Ireland's demand for wheat; otherwise stated, that the supply of linen offered to Canada by Ireland shall be equal to the amount demanded.

[1] The general principle, in fact, even when actual modern trade has been in view, has been frequently explained by economists without special reference to the flow of money. See, for example, Mill, *Principles of Political Economy*, Book III, Ch. XVIII, § 2; see also Bastable, *The Theory of International Trade*, fourth edition, London (Macmillan), 1903, p. 27. The flow of money has then, as in Mill, Ch. XIX of Book III, and Bastable, Ch. III, been brought under the general law.

§ 3

Effect on this Rate, when One of the Countries Offers a Variety of Goods in Trade, and also when it Receives Periodic Payments of Obligations from the Other

We must now modify our hypotheses, to make them conform more nearly to actual conditions. In trade between two countries, there are almost certain to be more than two commodities or services involved. Ireland, to recur to our illustration, will probably buy other things than wheat of Canada, possibly furs, timber, iron ore, etc.; while Canada is likely to buy other things than linen of Ireland. Then, even if, at $1 per bushel and $1 per yard, respectively, Ireland wants more wheat than Canada does linen, money does not necessarily flow to Canada, changing relative prices and the gains of trade. For Canada's desire to purchase other Irish goods may be intense enough to keep the relative distribution of money and the relative benefits of trade as they were.

In general, we may say that the more varieties of goods a country can offer for export, the better is its position in trade.[1] England's position, for example, is better if it produces several kinds of goods for foreign sale than if it produces but one. The demand of France or Italy or other countries for these several kinds of goods will be greater than for any one thing alone. As a consequence, there will be a greater tendency for gold to flow into England, making English prices higher and French, or other prices, lower, so giving England a larger gain from the trade. The more largely English merchants and manufacturers can introduce English

[1] Mill, *Principles of Political Economy*, Book III, Ch. XVIII, § 6.

goods into favor in the Orient, in Africa, in South America, or elsewhere, the greater is the gain, not to these merchants and manufacturers alone, but to the English nation. Among the goods that England is in a position to offer, must, of course, be included banking service, freight service, etc., as well as commodities. The fact that other countries desire to make use of her ships is as much a help toward making trade more profitable to England as the fact that other nations desire to buy her manufactures.

In a similar way, England is helped by the fact that her people have large investments abroad, on which they receive interest, dividends, etc.[1] According to the principles set forth in Part I, Chapter V,[2] this means flow of gold to England, higher prices there, lower prices where the money comes from, and, consequently, a flow of money back again from England. In the long run, England receives interest in the form of goods rather than of money. The money tends to flow back until the normal equilibrium is restored. But if England has relatively permanent investments, say in the United States, and is therefore receiving interest and dividend payments from the United States for many years in succession, the normal equilibrium of prices probably will not, during all that time, be reached. As fast as this equilibrium is approached, further interest and dividend payments upset it. For a great many years, therefore, English prices are likely to be somewhat higher, and American prices somewhat lower, than would be the case if Americans owed nothing. During this period, then, England will get somewhat more for English goods

[1] Taussig, *Principles of Political Economy*, Vol. I, p. 499. [2] § 8.

and pay somewhat less for American goods, than otherwise. The rate of interchange is slightly more favorable to England than it would otherwise be. Even assuming all trade to be carried on in the form of barter, this conclusion would still hold true. For if England were getting continuous interest in American goods, English desire for such goods would be partly satisfied, their utility to the people of England would be less (law of diminishing utility), and they would have to be offered at a less value in terms of English goods.[1]

On the other hand, England's advantage in the rate of trade, due to payments of interest, etc., which have to be made to Englishmen, must be regarded as an offset to a corresponding disadvantage in the rate of trade, during the period when the investments (on which interest, dividends, etc., are being received) were made. During the period when England's (or any country's) annual investment abroad exceeded her annual profits from abroad, the tendency was for gold to flow from England to other places. This tended to make prices elsewhere higher, and English prices lower, to give other countries, for the time being, a more favorable rate of interchange of goods with England. A country whose people are making large investments abroad, then, will have to dispose of its goods, for the time being, at a *less* favorable rate; but it will later, during realization of

[1] The law of diminishing utility is the fundamental explanation of England's gain in our illustration, even if money is used. Were it not for the law of diminishing utility, no change, or no appreciable change, in relative price levels would be required to bring about the flow back, for goods, of the money paid in dividends, etc. The flow back would begin to take place before the flow of money into England had appreciably changed the price level there or here, and would take place, therefore, without making the rate of interchange of goods appreciably more favorable to England.

profits and repayment, be able to dispose of its goods at a *more* favorable rate.[1]

§ 4

Influence on Trade and the Rate of Trade of Production in any Country under Conditions of Different Cost

Up to this point, we have assumed the commodities entering into trade to be produced at constant cost per unit, regardless of the amounts produced. But such is by no means always the case. Let us revert to the instance of Ireland trading with Canada. One week's labor in Ireland was supposed to produce 6 bushels of wheat. As a matter of fact, all land is not alike in fertility or in convenient access to market. While, therefore, it might be true that, if Ireland produced all her own wheat, one week's labor at the margin of cultivation (that is, on those lands least favorable to wheat production of all the lands so used, but which must be devoted to wheat production, to secure an adequate supply) might produce but 6 bushels; a week's labor in other parts of Ireland would perhaps produce a great deal more. If Ireland produced all her own wheat, the people of Ireland would have to produce it, perhaps, on unfertile lands and where the conditions of production were relatively unfavorable. It might, therefore, be uneconomical for Ireland to produce her own entire

[1] Since investment is really, in large part, a purchase of capital goods, *e.g.* railways, farms, factories, etc., it may be asked why the general discussion regarding the trade of the goods of one country for the goods of another does not cover investment also. But investment is rather the purchase of rights in goods which are not themselves moved. The capital purchased remains in the foreign country and yields *future* income to the distant investors. This yielding of future income, involves a later and opposite influence on the rate of trade between the countries, which does not occur when the owners and the capital owned are in the same place. Hence, special consideration must be devoted to the effects of lending and investing, on trade.

supply of wheat. Some wheat should rather be imported from Canada. But it might well be profitable for the people of Ireland to employ some of their more fertile land, if not better situated and adapted for other crops, in wheat production.[1] The possession of this more fertile land would lessen the intensity of Ireland's demand for Canadian wheat, and would thus tend to make the rate of trade between the countries more favorable to Ireland than if her entire supply of wheat had to be secured from abroad. If linen sells for $1 a yard and Canadian wheat is $1 a bushel, then it is of course more profitable for Ireland to buy Canadian wheat than to produce wheat on poor Irish land, under intensive cultivation (*i.e.* with but small areas of land for each unit of labor), where a week's labor can only produce 6 bushels, and where it can only be remunerated by a price of $1.67 a bushel. But it would be profitable for Ireland to produce wheat for home consumption on land where a week's labor would yield 14 or 13 or down to 10 bushels, unless this land, or part of it, was so situated and adapted as to yield still more from some other use, *e.g.* from being used to raise potatoes. A yield of 10 bushels a week would require only $1 a bushel (linen being $1 a yard), to induce wheat production in Ireland, and so to raise the wheat, would, by our hypothesis, be as economical as to import it from Canada. On land yielding 7, 8, 9, or less than 10 bushels a week, wheat production in Ireland is uneconomical as long as a yard of linen cloth will buy from Canada a bushel of wheat. So it results that, because of the law of diminishing returns, it is often most profitable for a country to produce, in part, its desired supply of some commodity, and import the rest. If the

[1] Bastable, *Theory of International Trade*, pp. 29 and 30.

demand for wheat in Ireland became greater, poorer Irish sources of production would perhaps be resorted to for a small part of the supply, while somewhat more would be imported from Canada and elsewhere at the higher price, relative to linen cloth, resulting from this greater demand.

By similar reasoning it may be shown that beyond a certain point of high cost, wheat production in Canada for export would not be carried, but that the people of Canada would prefer to devote themselves, in part, to other work, even to the manufacture of linen. Canadians would not carry wheat production to land so poor (assuming a great increase in population) as to yield less than 14 bushels a week, so long as 14 yards of linen could be produced in a week's labor; for, beyond that point, it would pay better to produce linen at $1 a yard than wheat at $1 a bushel. Growing density of population tends, in general, to the spread of manufacturing, because employment in agriculture, after a certain degree of intensiveness of cultivation has been reached, becomes less profitable at the margin the more persons are engaged in it.

It has been the good fortune of the American people that they have lived in a country not overpopulated and one of very considerable natural resources. They have had always, therefore, the opportunity to engage in the extractive industries, particularly in agriculture, and realize large returns in so doing. They have not had to take up manufacturing, however small the profits, merely for the lack of a profitable alternative, though they have found it worth while to engage in various lines of manufacturing industry which American resources or American methods make especially productive

in the United States. If other countries, such as England and Germany, are forced by dense populations and limited resources to engage in manufacturing to a greater relative degree, Americans have, on that account, no reason for envy, nor any reason for attempting, through tariffs or other arbitrary interferences, to force American industry more largely into parallel channels.

§ 5

Extension of Hypothesis so as to Include Trade Involving More than Two Countries

As we broadened our first hypothetical conditions so as to include more than two kinds of goods, we shall now further broaden them so as to consider more than two trading communities. We have assumed Ireland and Canada to be engaged in trade with each other. But trade may be three-cornered or four-cornered or more. Ireland may sell its linen chiefly to the United States instead of to Canada; the United States may sell cotton to Canada; and Canada may in turn export wheat to Ireland. Under these circumstances, the rates of interchange would still depend on relative intensities of demand. The rate at which Ireland can exchange linen for wheat, depends on the price which can be realized, in the United States, for linen, and the price which must be paid, in Canada, for wheat, or upon the intensity of American demand for the linen compared to the intensity of Irish demand for the wheat. The American demand for the linen, at any price, will depend, in part, on what Americans can get for cotton. The Canadian demand for cotton will depend, in part, on what Canadians can get for wheat. If Ireland has a surplus de-

mand for wheat at $1 a bushel, gold will flow to Canada and Canadian prices will rise. Canadians may then buy more cotton, in which case American prices will rise. Irish prices will fall, and Americans will probably buy more linen. When equilibrium is reached, Ireland will be paying somewhat more for wheat and getting somewhat less for linen. The United States will probably be getting somewhat more for cotton and will be paying somewhat less for linen. Canada or the United States or both will gain more from the trade, and Ireland will gain less. As in trade between two countries, equilibrium will be reached at a set of relative prices or values which equalizes supply and demand.

How are the commercial interests of three nations affected by the entrance of the third into trade with the other two? The general effect will be an increase of prosperity, and it is entirely possible that each of the three countries will gain something. Suppose, to take a seemingly most unfavorable case, that France enters a trade previously confined to Ireland and Canada, as a competitor of Ireland, competing with the last-named country in the sale of linen to Canada and in the purchase of wheat from Canada. In so far as France engages in this trade and no other, Ireland is deprived of a part of her former gain; but there is no net loss, for France and Canada together gain as much as Ireland loses, or more. In consequence of the competition of France, linen will fall in price, or wheat will rise, or both, so that a yard of linen buys less wheat than before. So far as Ireland still engages in the trade, at the new and, to her, more unfavorable rate of interchange, Canada gains, besides her former profit, precisely what Ireland has ceased to gain. So far as Ireland is driven out of the

trade by the entrance of France, France gains at least as much trade as Ireland loses, though at a rate of interchange somewhat more profitable to Canada and somewhat less so to France, than would be necessary were Ireland's competition absent. So far as France loses through the less favorable rate of interchange caused by Ireland's competition, Canada gains. If the result of the competition is a larger trade for Canada with the other two countries than Canada previously had with the one, as well as a more favorable rate, then Canada gains more than either of the others loses or than both lose; for Canada's greater gain on the same trade as before, at the better rate, makes up for the lessened gain of the other or others; while the additional trade, which must be at least worth having to the other country or countries, else it or they would not trade, is a very considerable gain to Canada. The competing countries, therefore, though they may hurt each other, will benefit by at least as much, and probably by more, the country or countries for whose trade they compete.

If, now, besides competing *against* Ireland in the trade with Canada, France also enters into trade *with* Ireland, both Ireland and France may gain from this trade as much as, or more than, they are losing by their competition. Then the entering of France into trade relations with the other two countries will benefit Canada, Ireland, and France. It seems a perfectly fair statement, therefore, that the more widely trade is voluntarily, and without governmental encouragement, extended, *i.e.* the more countries enter into it, the greater is the total gain; and that there is reasonable hope for a greater net gain to all countries concerned. In no case can the entrance of an additional country or community

cause a country or community already engaged in a trade, to engage thereafter in a losing trade. It has already been explained that unless a trade yields a gain to both (as, of course, to all, if more than two) countries concerned, the trade will not take place. The most that the new competition can do is to decrease this gain for the country or countries on one side of the trade. And, as above pointed out, the countries which lower each other's gains by competition for the trade of a third country, may increase each other's gains by trade with each other.

Any country gains more, the more numerous the other countries which desire its products and the more numerous the other countries which have goods to offer it. On the other hand, the competitive entering of many countries into trade makes it impossible for any one country to gain so extreme a share of the advantage in trade with another as otherwise it might. The one country will seldom have a monopoly of the production of goods needed in the other and will seldom be the only place where the other can sell its products. Alternative markets will generally be available, and the gains of trade are therefore likely to be more nearly equal between two trading countries. It is for these reasons that the policy of European nations, in early colonial days, of restricting the trade of colonies with other than their respective mother countries, might be advantageous to the mother countries, but was at the same time disadvantageous to the colonies.

§ 6

Cost of Transportation as Related to Trade

Cost of transportation is a factor influencing trade, which must be considered before our discussion is complete. This cost subtracts from the gains of trade the amount necessary to remunerate those engaged in carrying the goods. The principles determining how much gain is realized by each country are, of course, unaffected. Trade which cannot yield enough to pay for transportation simply does not take place, unless it is artificially stimulated, as by government bounties.

§ 7

Summary

In this chapter we have confined our attention almost entirely to the rate of interchange of goods between trading communities and countries. We have seen that, in the case of trade between any two countries, the rate at which the goods of the one exchange for the goods of the other cannot lie beyond either of two limits, at the one of which the one country, and at the other of which the other country, gains nothing from the trade. Between these limits, the exact rate is fixed by the comparative intensity of demand of each country for the goods of the other, or, to use familiar terms, by supply and demand. Whether gold is a common standard of value, or the currencies unrelated, or the trade direct barter of goods for goods, the rate of interchange will be fixed where intensities of demand balance.

A country is the more likely to get a large share of the total gain resulting from its trade with another

country or countries, the greater the variety of goods it can offer to stimulate the desire of the other country or countries to trade. In like manner, a country to which payments have to be made by other countries, *e.g.* of interest and dividends, is in a position to get, in consequence, more favorable rates of interchange, though such a country may have had, previously, during the period of its investing operations, somewhat less favorable rates.

The assumption first made that each country would buy of the other the goods securable most cheaply from the other, was explained and qualified to conform with the fact of differing cost of production of any good, within the same country. It was pointed out that a country might produce for itself a certain amount of a desired kind of goods, from its most favorable sources of supply, or up to the point where further home production would involve uneconomical employment of its labor and capital; and that beyond that point it would import.

Our assumptions were further broadened to include trade involving more than two countries. Three-cornered trade was alluded to, and it was shown that the influence of comparative intensity of demand is of determining force in this case and likewise in cases involving still more countries. If a third country (or a fourth or fifth) enters into a trade previously confined to two countries (or three or four), the result will be a greater total prosperity, although if the third country enters the trade only as a competitor of one of the others, that one may find its gains somewhat reduced. If each trades with each of the others, there is a reasonable prospect for increased prosperity to all three. Any country, however, is prevented by the entrance of other countries

into competition with it from realizing exorbitant profits at the expense of the countries it trades with. On the other hand, any country gains the more from trade, the larger the number of other countries which compete with each other in buying from and selling to it.

CHAPTER III

The Incidence of Tariffs for Revenue

§ 1

Revenue and Protective Tariffs Distinguished

So far we have discussed international trade mainly on the assumption that such trade is wholly free. As a matter of fact, trade is almost never wholly free between nations, though it is frequently so within the boundaries of a single nation. One of the largest, if not the largest, of free trade areas in the world, is the United States. Between one state and another, any tariff is unconstitutional. We have, therefore, free trade within our own borders, though not with outside nations. Almost, if not quite, every nation has a tariff wall, high or low as the case may be, which, usually, to a greater or less extent, hampers trade. Tariff duties at the boundaries of a country may be levied on goods imported or on goods exported, but in practice are much more likely to be levied on the former. We shall consider the economic effects of both import and export duties.

Import duties are of two sorts, revenue tariffs and protective tariffs. A strict revenue tariff is intended to raise revenue, while not interfering with trade more than is necessary. Although absolute free trade practically never exists between great nations, yet, in ordinary usance, free trade is said to exist when the tariff levied is levied according to strict revenue principles. A strictly revenue tariff, or so-called "free trade," means,

then, such an adjustment of taxes as will not, in any great degree, divert industry in the levying country out of the channels it would otherwise follow, *i.e.* it will so divert industry to the least possible extent consistent with collection of the needed revenue. A tariff levied by any country only on goods not produced within it, is such a tariff. An example is the British import tax on tea, an article not produced in Great Britain or Ireland. An import duty on goods which are, or can be, produced within the levying country, is also, properly speaking, a revenue duty, if it is accompanied by an internal tax of equal amount[1] on the domestic product. Such a tax does not have, and is not intended to have, any great effect on the location of industry. If the domestic producer is helped by the tax levied on imported goods, he is hindered to an approximately equal extent by the tax laid upon his own goods.[2] His position in relation to that of his foreign rivals remains, therefore, substantially the same as before.

A protective tax is intended, as such, primarily to divert industry from the channels it would otherwise follow into channels favored and encouraged by the tariff law. Its purpose is to encourage the home producer in some line or lines by levying a high tax on goods brought from abroad and thus discouraging the importation of such goods.

[1] If the domestic goods are of identical grade and therefore of the same value, a tax of the same per cent is also a tax of the same amount per unit of quantity. If the domestic goods are of different grade and different value, the question might arise whether a per cent tax or a tax per unit should be levied equally on both.

[2] Of course the tax, by necessitating a higher price, may decrease the total demand. If so, both home and foreign producers may make smaller sales. But so far as the public still buys the goods, these goods are produced where the conditions are relatively the best.

Expressing the matter in another way, we may say that both the revenue and the protective tariff are taxes on the consumer; but that in the former case the consumer pays this tax to the government, while in the latter he pays a tax to the home producer. A revenue tariff on imports can only be successful in its chief aim if it allows goods to be imported, because on all such goods a tax is paid which goes to the government and may be used for public purposes; while, on the other hand, a protective tariff is most successful in its aim in so far as it prevents goods from being imported, because then its effect is to raise the price which the home producers can charge. In this latter case, the government gets little or no revenue, and the tax, if we call it such, which the consumer pays, is paid, in the main, to the home producers, rather than to the government. In other words, the protective tariff makes the consumer buy of the home producer at prices higher than the home producer could otherwise charge.

§ 2

When the Burden of an Import Duty Levied for Revenue is Borne by the Levying Country

A revenue import duty is commonly supposed to be shifted by the importers on whom it is first imposed, to the consumers, in the levying country, of the taxed goods. In the complications of modern trade, with many countries taking part, this result is perhaps very nearly realized. But it is perhaps never exactly realized, and it is not difficult to imagine circumstances under which the main burden of the tax would fall elsewhere than on the consuming public of the tariff levying country.

Under sufficiently favorable (to the levying country) circumstances, a part, or all, of the tax might fall upon the exporting country, or, conceivably, the exporting country might lose more than the tax, to the profit of the levying country.

Let us, in discussing the various possible shiftings of an import revenue duty, use again our familiar illustration, the assumed trade between Ireland and Canada. If Canada, where a week's labor will produce, according to our first assumptions, 20 bushels of wheat at $1 a bushel or 14 yards of linen at $1.43 a yard, levies an import duty of 10 cents a yard on linen from Ireland, which would otherwise sell for $1 a yard, this linen will sell for $1.10. Irish linen will still be bought by Canadians in preference,[1] since Canadian linen cannot be sold for less than $1.43. The tax is levied first on the importers. The importers will not, perhaps cannot, remain in business if they are unable to shift the tax, for to pay it themselves will make their profits (if these have been subject to competition and are therefore approximately the same as in other kinds of business) less than the same labor and capital will yield in other lines, and will very likely even turn them into losses. The foreign producers will not (unless combined in a monopoly and previously earning monopoly profits, and not then except under very improbable circumstances [2]) consent to suffer the loss, since this will reduce

[1] If there is any likelihood that such will not be the case, and if the tariff is to be levied for revenue, not for protection, a tax as great should be placed on the home produced goods.

[2] *I.e.* if the monopoly will lose less to bear the whole tax than to shift it and suffer a reduction of its sales. A monopoly will itself pay, without trying to shift, a tax levied directly on monopoly profits, since the monopoly can best pay such a tax by maintaining the same prices, *i.e.* prices yielding the highest net return. But a tax which increases in proportion to the number of sales, a monopoly will

their profits below the average level in their country, in other lines. The supply of Irish linen offered in Canada will not, therefore, equal the demand, unless the price rises by 10 cents a yard.

If the demand of Canada for linen is absolutely inelastic, the shifting proceeds no further; the 10 cents a yard remains as a continuing burden on Canadian consumers of linen. A certain amount of linen was wanted at the former and lower price, and the same amount is wanted at the somewhat higher price. The 10 cents additional goes to the Canadian government. The same amount as before must be paid to linen manufacturers in Ireland. Canadian wheat prices will not change, and wheat consumers in Ireland will buy the same amount as before of Canadian wheat. The trade will be in equilibrium at just the same point, as to quantity of money in each country and as to amount of cloth required to buy a bushel of wheat, as before. The net result is to take 10 cents a yard from each Canadian purchaser of linen imported from Ireland, and transfer this 10 cents to his government. If we omit reference to money and money prices, we may say that the tax has left just where it was before, the rate of interchange between the two commodities, linen and wheat, which equalized supply of and demand for each in terms of the other; and that the Canadian government has simply taken in taxation, from its own subjects, a part of their gain from the trade.

be more likely to endeavor to shift, and will not so greatly fear a resulting decrease of its sales, since this involves a decreased tax also.

§ 3

When the Burden of an Import Duty Levied for Revenue is Shifted by the Levying Country to Another or to Other Countries

But the situation is otherwise if Canada's demand for Irish linen is *elastic* while, at the same time, Ireland's demand for Canadian wheat is inelastic. If the demand of Canada for linen imported from Ireland is elastic, then the effect of the ten cents tax, in raising the price of the linen to $1.10 a yard, will be to decrease the Canadian demand for the linen. In consequence, Canada will have a smaller money obligation to Ireland. Yet if Ireland continues to buy as much wheat as before, the yearly money obligations from Ireland to Canada will be the same as if the tax were not in force. There will consequently be an excess flow of money to Canada. Canadian prices will rise and Irish prices will fall. Of course, if the Irish demand for wheat is elastic, or if Ireland can as cheaply buy her wheat elsewhere, Ireland's demand for wheat will fall off as soon as the price rises very slightly. Then there can be little redistribution of the money metal, and Canada can shift very little of the tax upon Ireland. The net result is less trade. Canadians buy less cloth and sell less wheat. But if the Irish demand for Canadian wheat is inelastic, continuing at about the same amount despite rise of prices, then the tax may seriously decrease Ireland's gain from the trade, to Canada's advantage.

To illustrate this possibility, let us suppose that, in consequence of the tax on linen of ten cents a yard, which raises the price to Canadian consumers, the demand for linen is so decreased in Canada that there is

a net inflow of gold from Ireland; and let us suppose, further, that the inflow of gold does not cease until the supply of money in Canada is $\frac{12}{11}$ of its former amount, and that of Ireland $\frac{9}{10}$ of what it was. Then Canadian wheat would sell for $\frac{12}{11}$ of $1 or about $1.09 a bushel, while Irish linen, not counting the tax, would sell for $0.90 instead of $1 per yard, or, with the ten cents tax, at $1 instead of $1.10. Let us suppose that, at this new set of prices, Canada again has to pay Ireland as much for linen each year as Ireland has to pay Canada for wheat.

How does the case stand as to gains and losses of the two communities? The Canadians are still getting their linen for $1 a yard, the price without the tax having fallen to $0.90. And they are getting $1.10 a bushel for wheat instead of $1. The Canadian government is securing its ten cents tax on every yard of linen; yet Canadian consumers are paying no more than before the tax was laid, and Canadian producers are getting a higher price for their wheat. The people of Ireland are paying to Canada the tax and more than the tax.[1] The linen manufacturing interests of Ireland are receiving $0.90 instead of $1 a yard for their linen; they are paying more for wheat. It is still worth while for them to engage in the trade. They can still secure more wheat in exchange for a week's production of linen than they can themselves produce in a week (except on their best lands). But they gain much less from the trade than formerly. It should be added that the taxing country, Canada, may gain also in lower prices of other Irish goods than linen cloth, resulting from the redistribution of money, and in their ability to buy more of

[1] Mill, *Principles of Political Economy*, Book V, Ch. IV, § 6.

these goods because of the lower prices and their own higher incomes.

We must guard ourselves against the assumption that the whole loss falls upon the Irish linen manufacturing population as distinguished from Irish producers in other lines.[1] The loss is general. The linen producers would not remain in that business and alone bear all the loss, since labor and capital tend always to leave relatively unprofitable for relatively profitable activities. They only sell linen more cheaply because of a decrease of money in Ireland, which tends to lower in a like proportion the prices of all Irish goods and Irish labor.[2] Likewise, the higher price of Canadian wheat falls alike on all consumers of it in Ireland.

On one hypothesis, however, the price of linen made in Ireland would fall by a greater per cent than other Irish prices, viz. on the hypothesis (likely to be in conformity with fact) that the profits of linen production are greater in some factories and on some sites in Ireland than on other sites in that country. If the tax decreases the demand for the linen in Canada, the Irish manufacturers on the better sites may alone be able to satisfy the demand remaining; and they may be willing to do so, because of their relatively advanta-

[1] Mill, *Principles of Political Economy*, Book V, Ch. IV, § 6.

[2] Strictly speaking, a $\frac{1}{10}$ decrease of money in Ireland would, under the conditions here assumed, cause a fall in the prices of Irish goods, of more than $\frac{1}{10}$. For it would cause a fall of $\frac{1}{10}$ in average prices, including the price of Canadian wheat and its products so far as bought and sold in Ireland, *e.g.* by middlemen. Since these goods would be higher in price, other goods must fall in greater proportion than 10 per cent. Whether the fall in the prices of other goods would be *much* greater than 10 per cent, would depend upon the importance, in the Irish market, of the Canadian product. If trade with Canada is assumed to be of slight importance, other prices would fall by about $\frac{1}{10}$, otherwise by more. But no good purpose would be served by complicating the text with these refinements.

geous positions, at prices lower than could be afforded by marginal manufacturers (*e.g.* those on the poorest sites), rather than go into other occupations. The loss to Ireland, due to Canada's tax, would then fall with greatest weight on the linen producers of Ireland, or on the owners of sites adapted to linen manufacture. A surplus gain, from better organization or from more advantageous situation, which these classes had previously enjoyed, would be lessened.

As regards the ultimate burden of the tax, we reach no different conclusion if we assume the currencies of Ireland and Canada to be based on independent standards and prices in the one country to be entirely unrelated to prices in the other.[1] Suppose each to have a paper money standard, not redeemable in gold. The ten cents tax discourages Canadian purchase of Irish linen. Ireland continues to buy about the usual amount of Canadian wheat. The balance is settled in gold. In Ireland, gold becomes scarcer and has more purchasing power; in Canada, it becomes more plentiful and has less purchasing power, per unit quantity. Irish paper money will buy less gold. Canadian paper money will buy more gold. Canadian wheat remains $1 a bushel in terms of Canadian money, but it requires more gold than before to buy it, and more Irish money to buy the gold. The cost to the people of Ireland of Canadian goods tends to rise. The cost to Canadians of the products of Ireland tends to fall. Omitting, altogether, consideration of money prices, we may say that the tax, by discouraging Canadians from trading, has made necessary a new, and, for Canada, a more favorable rate of interchange of goods, to equalize supply and demand.

[1] Cf. Part I, Ch. VI, §§ 6, 7, 8, 9.

The illustrative figures which have been given show a loss to Ireland greater than the amount of Canada's tax.[1] Ireland's loss, however, might be the equivalent

[1] Professor Edgeworth seems to take the view (*Economic Journal*, Vol. VII, p. 397) that this extreme possibility is a consequence of the tax being collected, in practice, in money, and that if it were collected in kind, Ireland (in our example) could not be made to pay more than the tax. His thought apparently is that, however elastic Canada's demand for linen, if Ireland paid the tax in linen, in addition to giving Canadian consumers as much linen as before for the same amount of wheat as before, the trade would again be in equilibrium; that the Canadian consumers, as distinguished from the government, would then be entirely unaffected by the tax, and would be as willing to buy linen with wheat as previously and in as large quantities; and that Ireland, therefore, would not have to pay more than the tax to get the accustomed supply of wheat from Canada.

A correct distinction between the circumstances under which more than the burden of the tax might conceivably be shifted upon Ireland and the circumstances under which the full amount of the tax would be the limit of this burden, is based on what the Canadian government does with the tax and not at all on whether it is initially collected in money or in kind. We may rightly conclude that a Canadian import tax collected in linen could not impose a greater burden upon Ireland than the amount of the tax, if we suppose the Canadian government to throw the linen it receives as taxes into the sea or if we assume that it uses the linen so received for a purpose which would otherwise not be carried out. We may reach exactly the same conclusion with equal certainty, however, if we suppose the tax to be initially collected in money and the money then used to buy the linen to be disposed of in one of these two ways. If the burden of this tax collected in money falls entirely upon Ireland, then Ireland must sell enough more linen (assuming she has no other exports) to pay it. But the Canadian government expends the entire money returns from the tax for linen which, otherwise, by our present hypothesis, the government would not buy. In other words, Canada buys as much more linen as Ireland must sell additional to pay the tax. If Ireland, therefore, thus bears the entire burden of the tax by exporting extra linen, the remainder of her linen will find the same market as previously and will bring her as much wheat as before.

But if the Canadian government would use about the same amount of linen anyway, then for the government to get this linen by taxing linen imports in kind (and likewise by taxing them in money) instead of by purchasing the desired linen with the proceeds of internal taxes, means that, whereas the government before, in effect, offered say wheat (if the money equivalent is offered, our conclusion would be the same) taken in taxes for the desired linen, now it offers nothing. Both individual Canadian consumers and the Canadian government had been offering wheat for linen. Now only the former are doing so. The people of Ireland, if the Canadian wheat is necessary for them, must now buy as much wheat with linen (assuming them to have nothing else exportable) from

of the tax, or it might be considerably less than the tax. Thus, the equilibrium of trade might be restored when Canadian wheat had gone up to $1.03 a bushel, and Irish linen down to $0.96 a yard, making $1.06 with the tax. Then Canadians would be paying 6 cents of the 10 cents tax on each yard, but getting back 3 cents of it in the higher price of wheat. Ireland would be paying the larger part of the tax, but Canada would have failed to shift all of it upon Ireland.

Two conditions, then, or sets of conditions, favor the tax-levying country in any attempt to shift the burden of the tax upon the country trading with it. In the first place, the tax-levying country is advantaged by

the Canadian people individually as they previously bought from individual Canadians and the Canadian government together. If the Canadian people, as individuals, have a comparatively elastic demand for linen, Ireland must offer them for their individual consumption, besides what their government gets, about as much linen as before per bushel of wheat or they will not trade to anything like the former extent. Ireland must therefore pay most or all of the tax. But Ireland will then only be getting the wheat she previously got from Canadians as individuals and will not be getting what she previously got as a result of her trade with the Canadian government. This additional amount she must now get (for we are supposing her demand to be inelastic) from Canadians as individuals, and to do so she must sell more linen. The result may be, even though Canada's demand for linen is somewhat elastic, that the marginal utility of linen to Canadian consumers falls, and that Ireland must offer more than before, per bushel of wheat, besides paying the tax.

It is true that if Canadians are released from a tax they themselves previously paid, they may want more linen than before, but the probability is that their greater prosperity so resulting would be enjoyed in other ways also and would but slightly affect their demand for linen. And unless the entire gain from remission of the taxes formerly spent by the government for linen were now spent by the Canadian people for additional linen beyond their previous individual consumption, the new demand resulting from their greater prosperity would not take the place of the former demand by their government.

We cannot safely conclude, therefore, that if the tax is collected in kind, Ireland cannot possibly lose more than its equivalent. As is shown in the text, any great shifting of taxes to foreign nations is rather a theoretical possibility than a practical probability, but if it is a theoretical possibility when collected in money, it is also a theoretical possibility, and to the same extent, when collected in kind.

having a very elastic demand for the goods of the other, coupled with monopoly of consumption of the goods of the other.[1] In the second place, the tax-levying country is aided if it has a monopoly of production of the goods it sells while the other country has an inelastic demand for those goods.[2]

In practice, the conditions under which a country can shift all or most of its import taxes upon another, are unlikely to occur, or, at least, are unlikely to occur in conjunction. To begin with, we cannot expect that, in general, the country exporting the taxed product will have an inelastic demand for the product or products of the taxing country. And, secondly, a very slight change in relative prices may bring additional articles within the demand of the taxing country, thus maintaining the equilibrium of trade nearly where it was before. To illustrate, a slight rise of Canadian prices and a slight fall of Irish prices may induce Canadians to buy potatoes, silks, and laces, as well as linen, in Ireland. Then equilibrium may result without a sufficient change in the rate of trade to throw upon Ireland much of the burden of the import tax.

Thirdly, and probably most important of all, the taxing country cannot ordinarily shift much of the burden of its import duties to another, because third countries offer to this other a competing or alternative trade. Thus, Canada probably cannot throw upon Ireland the burden of a tax on Canada's imports, because Ireland has the alternative of trading with India, Argentina, the United States, and other countries. If Canada buys less Irish linen because of the tax, so that money

[1] Bastable, *The Theory of International Trade*, fourth edition, London (Macmillan), 1903, p. 116.

[2] *Ibid.*, pp. 116, 117.

flows into Canada and Canadian prices rise, Ireland will buy wheat of India, the United States, Argentina, or Russia, rather than pay higher prices for Canadian wheat. In short, the Canadian wheat producers must take the same prices charged elsewhere, or export no wheat.[1] Likewise, rather than sell their linen to Canada for a much lower price than before, the people of Ireland would export more to other markets. Most, if not all, of the tax would be pretty likely to fall upon the people of the taxing country; and even if this were not true, the attempt to tax other nations is a game at which all can play.

The fact that other countries than Ireland and Canada are to be reckoned with, means, also, that the general price level in Ireland would probably fall very little as a consequence of Canada's tax. Though an inflow of money into Canada due to her decreased imports might somewhat raise the level of Canada's prices, any corresponding fall in Irish prices would make Ireland a good place to buy in and would cause money to flow from third and fourth countries into Ireland, even if Canadians were prevented by their import tax from buying in Ireland. The fall of prices would, then, if it took place, be distributed over several countries and would not probably be confined to Ireland. It would be very slight, therefore, in any country. The chief effect of the redistribution of gold consequent on Canada's tax would be seen in a rise of Canadian prices and not in a fall of Irish prices.

[1] The exact effect, in the absence of any disturbing factors, would be a transference, in part, of the Irish demand for wheat to these other countries; a very slight increase, generally, of the price of wheat, and, therefore, a very slight increase of the price of the Canadian wheat still exported; and a very slight decrease in the price received by Ireland for linen.

§ 4

The Ultimate Incidence of a Revenue Duty on Exports

Duties for revenue may be levied on exports, if so desired, as well as on imports, though the present practice is to levy them on imports. Here, again, there are various possibilities as to shifting. Suppose that Canada levies a duty of ten cents a bushel on the export of wheat. The production of wheat, in Canada, for export, would be decreased, unless the tax could be shifted upon foreign consumers. If the tax could not be shifted, those wheat producers who were making but the usual return to industry (the marginal producers) would change to another line of production. If the wheat consumers of Ireland (and of other countries getting their wheat from Canada) should have an absolutely inelastic demand for wheat and could get wheat nowhere else, they would pay the higher price for wheat rather than not get the usual amount of it, and thereby would be paying the tax. In fact, if their demand were altogether inelastic, they would soon be paying more than the tax.[1] For the whole amount paid by purchasers of Canadian wheat, including the part collected by the Canadian government as export tax, goes to Canada. This means that if the wheat consumers of Ireland (and elsewhere) paid the tax in addition to what they were previously paying, there would be a flow of gold into Canada. Canadian prices would rise. Prices in Ireland would fall. Consumers in Ireland would then be paying more for wheat by the amount of the tax plus the amount of rise (due to gold flow) of net price; while the fall of Irish prices would mean cheaper linen for Canada. A bushel of

[1] Mill, *Principles of Political Economy*, Book V, Ch. IV, § 6.

wheat, even after subtraction of the tax, would buy more linen than before.

But if Ireland's demand for wheat is decidedly elastic, or can be easily satisfied from other sources of supply, then the increased price resulting from the export tax will cause an immediate falling off of Irish purchases. Let us suppose this falling off of Irish demand to be sufficient so that, even with the addition to the price, of the tax, the money obligations from Ireland to Canada are less than before. Then a balance of gold will flow from Canada to Ireland. Canadian prices will fall and prices in Ireland rise. If Canadian demand for linen is comparatively inelastic, this flow and change of prices may go to a considerable extent before Canadian demand for linen decreases and Irish demand for wheat (and other Canadian products) increases enough to bring equilibrium. At any rate, the fall of Canadian and rise of Irish prices will mean that at least a part of Canada's export tax has been shifted back upon Canada. It is conceivable that Canadian wheat will fall so far in price that, even with the tax, Ireland gets it as cheaply as or more cheaply than before, while Canada pays more for Irish linen. In that case, Canada, so far from taxing another country or other countries, would herself lose more than the tax. If we assume Canada and Ireland to have different standards of value, our conclusions will be the same.[1]

It should be clearly understood that the loss to Canada (assuming the result just discussed) does not fall, if the taxed article is produced at nearly constant cost, on the producers of that article alone. For these producers would refuse to accept lower returns and remain in the

[1] Cf. § 3 of this chapter (III of Part II).

same business when other lines were more profitable. They accept the lower prices when and because the outflow of money makes Canadian prices, generally, lower.

But the goods taxed may be produced under conditions of sharply increasing cost (*i.e.* by some producers less advantageously than by others). This may be the case with wheat, chosen as our illustration of the taxed article. On this assumption, much of the loss due to the tax may fall on the owners of wheat lands. Those producing at the margin of cultivation (those just making enough to keep them in the industry) will refuse to bear this loss, and will cease producing. Those producing under more favorable circumstances (on more fertile or better situated land) may prefer to suffer considerable loss out of what would have been their surplus or rent,[1] rather than to cease wheat raising.[2] After the tax has diminished foreign demand for Canadian wheat, the more advantageously situated Canadian wheat producers can fill this smaller demand at lower net prices than before, and still realize, because of their advantages of soil and situation, a reasonable profit. A price sufficient to keep the poorer situated producers in business, plus the tax, will not be paid by enough foreign consumers to take the previous annual supply of Canadian wheat. The price will fall. Canadian owners of wheat lands will derive a smaller return from those lands. If there is a surplus flow of gold from Canada, because of excess purchases of Irish linen over sales of Canadian wheat, the price of the wheat will fall still further, along with prices of other Canadian

[1] Cf. Bastable, *The Theory of International Trade*, p. 114.
[2] Cf. Ch. II (of Part II), § 4.

goods. But it will still be true that a special loss has fallen upon the owners of wheat lands.[1]

As in the case of the import, so in the case of the export revenue tax, we must emphasize the unlikelihood that a country will be able to shift the principal part of its tax burden upon other countries. So soon as trade with Canada becomes, because of the tax, appreciably less profitable to Ireland, the latter country is likely to trade more with other nations and communities, and less with Canada. For this reason particularly, as well as the fact that the other country, Ireland, is quite as likely as the tax-levying country, to have an elastic demand for the goods it imports, there is a reasonable probability that the people of each country will themselves have to pay, in the main, the cost of running their own government and carrying on its functions.

§ 5

Summary

Revenue tariffs we have classified as import and export tariffs. A revenue tariff, as such, is expected to secure revenue for government with the least possible effect on industry. A protective tariff is specifically intended to turn industry into channels it would otherwise not enter.

Revenue tariffs on imported goods may fall on the consumers in the tax-levying country, or may, under certain hypothetical circumstances, fall upon the country (or countries) exporting the taxed goods. If the demand for the goods in the taxing country is elastic; if the

[1] In a similar way it might be shown that, even if Canada succeeds in throwing the main burden of the tax upon Ireland, owners of Canadian wheat lands might, as a separate class, have their prosperity decreased.

demand for the goods produced in it is in other countries comparatively inelastic; and if these other countries have no other place to sell their exports and buy the goods they desire; then the tax burden may be shifted in part, or in whole, or more, upon them. But in the actual commercial world, circumstances are not likely thus to favor the tax-levying country.

In the case of tariffs on exported goods, the hypothetically possible consequences are not dissimilar. A sufficiently inelastic demand from other countries, for the taxed goods, will throw upon them a burden perhaps equal to or in excess of the tax, to the advantage of the taxing country. On the other hand, the country taxing its exports may, if the foreign demand for the taxed goods is elastic while its demand for foreign goods is inelastic, not only pay, itself, the entire tax, but may also carry on its trade with foreign countries at a less favorable rate of interchange to it, than before. The general rule probably is that a government is mainly supported by those subject to it. If it were possible to support government by shifting taxes upon foreign countries, all nations would be likely to attempt it, with consequent cancellation or partial cancellation of effects.

CHAPTER IV

The Effect of a Protective Tariff on National Wealth

§ 1

The Effect of a Protective Tariff on a Country's Export Trade

In discussing the protective tariff, a natural starting point is the question of its effect on the supply of goods brought from foreign countries. A purely revenue tariff is intended to have the least possible effect on the flow of trade. A protective tariff prevents goods from coming into the "protected" country, is, in fact, particularly intended so to do, by, in effect, fining the importers. Thus, a Canadian tariff on linen of 50 cents a yard may be said to fine the importers of linen to that extent. This discourages importation and so tends to decrease, in Canada, the supply of linen. In consequence of the decreased supply of linen in Canada, the price advances. Either it must advance by about the equivalent of the tax,[1] or the linen will not be imported. This high price, however, causes a falling off in the demand for linen brought from abroad, and a shifting of this demand to the home product. If linen from Ireland was $1.00 and cannot now be sold for less than $1.50, and if Canadians can manufacture it profitably for $1.43, the sales

[1] See, however, discussion in this chapter (IV of Part II), §§ 6 and 7. Cf. Ch. III (of Part II), § 3.

of Canadian linen in Canada will increase. Canadian production is thus encouraged, by government aid, to follow a line which it otherwise would not.

This purposeful interfering with importation disturbs the previously existing equilibrium of trade conditions. Canada, for a time, continues to export wheat or other goods, though refusing to import much linen. Gold, therefore, flows out of Ireland and into Canada. This raises Canadian prices and lowers prices in Ireland.[1] The prices, therefore, of goods which Canada has exported, *e.g.* wheat, may rise so high that the Irish and other foreign demand, if it does not cease, will at least grow smaller. Or, if some of these goods, such as wheat, cannot be sold abroad even in smaller quantities for a higher price than before, because of competition from other sources of supply, then the higher money cost of production in Canada will cause production for a foreign market to decrease. In the long run, by so much as a protective tariff directly limits imports, by just so much will it indirectly injure the levying country's export trade.[2] This is true whether the different trading coun-

[1] Or, if there is a general tendency for prices to fall, as from a more rapid increase of trade than of money, Canadian prices fall less than do Irish prices; while, if there is a general tendency for prices to rise, Canadian prices rise more than Irish prices. The essential fact is, that Canadian prices rise by *comparison* with Irish prices, while Irish prices fall by *comparison* with Canadian prices. It would complicate and make harder to follow our arguments to add this explanation in each chapter throughout Parts I and II, but the reader may, with advantage, bear it in mind.

[2] Whatever goods continue to be exported until Canadian prices have appreciably risen, would more probably be goods produced under conditions of increasing cost and goods in which competition from other sources of supply would not prevent Canadian sales even at somewhat higher prices than before. If all goods were produced under conditions of absolutely constant cost and could be secured equally well from other sources, if society were in a state of economic equilibrium, and if there were no economic friction, then Canadian prices could change only infinitesimally as a result of money inflow caused by the tariff. For

tries have a common standard of value, or unrelated monetary systems, or no monetary systems. The Irish manufacturers of linen will be forced by the more direct action of the tariff to seek markets elsewhere than in Canada. The Irish consumers of wheat will soon make use of the alternative, in case an inflow of gold into Canada raises wheat prices there (or, if the currencies are unrelated, in case more Irish money than before is required to buy a given amount of Canadian money), of buying their wheat elsewhere. The result, to Canada, is the loss of what had been a profitable trade.

The establishment of a few protected industries may serve to discourage or cripple many unprotected industries, for it means higher money prices and a consequent disadvantage to all lines of export trade. Among other things, the services of a country's mercantile marine may be regarded as exports of that country, in so far as these services are rendered to and are paid for by, the people of other countries. This, like other parts of a country's export trade, is affected unfavorably if the country follows the protective tariff policy. Besides the injurious effect resulting from the general rise of money prices in the protected country, on the exportation of any of that country's products, there is the special discouragement which results if the production of these exportable goods requires the use of machinery or raw material directly raised in price by a tariff upon it.

the least tendency to rise of costs would at once turn all producers away from lines of production for a foreign market in which prices could not be made to rise equally fast, and prices in foreign markets, of the goods in question, would not rise if the goods could be secured in larger quantity from other sources, at no greater cost than before. A protective tariff which prevented imports would immediately stop exports. Under existing conditions, exports would be correspondingly decreased by an import tariff only after an appreciable lapse of time.

A high export tariff, intended to prevent exports, would eventually, like a protective import duty, decrease both exports and imports, but the export duty would decrease exports first. The diminution of exports would mean a temporary net outflow of specie from the duty-levying country. Finally, prices in that country would be so low that its people would more largely supply themselves with desired goods and would buy less goods abroad.[1] It is not essential, however, that we should consider at length the effects of high export duties, because, while there have been examples of such, they have been much less common than high import duties, and are, at present, almost unknown.

§ 2

How a Protective Tariff Sets Up Unprofitable Industries at the General Expense

The fairly direct and practically immediate effect of a protective tariff is to raise the prices of protected goods by not more than the amount of the tariff. As we have seen, if Canada levies a 50 cents tax per yard on linen, to protect Canadian linen production, an almost immediate result is that Canadian linen manufacturers can charge more for linen than otherwise they would be able to. For the 50 cents tax has, as a first consequence,[2] that linen from Ireland must sell for $1.50 instead of $1 a yard. The tax, therefore, makes it possible for Canadian linen producers to charge prices (except as hindered

[1] With a combination of high protection on all importable goods, and high restrictive export taxes, the prices of protected goods would rise because of their greater scarcity, but there would be no rise of other prices due to inflow of gold nor any fall of prices due to its outflow.

[2] See, however, §§ 6 and 7 of this chapter (IV of Part II).

by competition with each other) higher in about the same proportion. Without the tariff protection, Canadian linen producers must sell for $1 a yard or less, if they would have the home market. If all of them were willing to do this, if employing manufacturers and their employees were willing to manufacture linen for an average return of $14 a week, or less, they could carry on a large business and perhaps almost monopolize the home market, even without a tariff. But the tariff, by compelling a rise in the imported linen to $1.50, enables the now protected Canadians to charge (say) $1.43, and still be sure of most of the Canadian market. Under Schedule K of the late Payne-Aldrich tariff law, it was found by the Tariff Board that an average duty of 184 per cent levied by the United States on 16 varieties of woolen fabrics, resulted in an average price for the home-produced goods 67 per cent higher than the price of like goods abroad.[1] The tariff has in this regard about the same effect as natural barriers and resulting high cost of transportation. Either natural barriers or the artificial barriers of a protective tariff act tend to make more difficult to get and more expensive in one country, the products of another, and, therefore, to enable the home producer to charge higher prices. The late Professor William Graham Sumner of Yale college called attention to the fact that, after the St. Gothard tunnel was opened, the people of southern Germany petitioned for higher taxes on Italian products so as to offset the greater cheapness made possible by the tunnel.[2]

The protective tariff on linen makes Canadian manu-

[1] Report of the Tariff Board on Schedule K of the Tariff Law, 1912, Vol. I, Part I, p. 14.

[2] *Protectionism*, New York (Holt), 1885, pp. 75, 76.

facture of the linen much more profitable than it would else be, since it enables the Canadian manufacturers to charge much higher prices. It therefore diverts a certain amount of Canadian labor and capital, from the production of wheat and from other lines, into the production of linen. As has already been suggested, if Canadians want to go into the linen making industry and take what the industry will yield them in open competition, they can do so without the tariff. But though they can, it is obvious that they will not. For, by our familiar assumption, a week's labor in Canada will produce 20 bushels of wheat, and will therefore earn, if wheat sells for $1 a bushel, $20. A week's labor will produce, however, but 14 yards of linen. If linen is but $1 a yard or less, the week's earnings are but $14. Without the tariff, therefore, Canadians can go into linen production if they want to, and they may be able to make a fair living at it; but they will not want to, for the reason that they can make very considerably more in another line, viz. the production of wheat. The tariff, by enabling them to get $1.43 a yard or more, though at the expense of 43 cents a yard to every Canadian purchaser of linen, makes the business as profitable as the other, or more so, and induces some Canadians to take it up. A protective tariff, therefore, causes the development of an industry in a location or country where it would not otherwise exist, by making possible higher prices and correspondingly higher returns to that industry, and in that way alone. Under free trade conditions, the location of various industries within different countries is determined, as we have seen, by the principle of relative efficiency in production. The greatest profitable degree of geographical specialization

results. Under protection, this specialization is purposely interfered with, and what industries shall be developed and maintained in the protective tariff country depends, in large part, on governmental favor.

The general principle of free trade follows directly from what we have learned of the benefits of international trade. Geographical specialization, so far as it develops naturally under free trade conditions, yields a larger total product than local or national self-sufficiency; and of this larger product the several trading nations secure each a share. Protection prevents this specialization, makes impossible the securing of the larger total product, and, therefore, makes the protected country in so far poorer.

To illustrate, consider again Canada's 50 cents protective duty on linen. Before the laying of this duty, the average Canadian could produce, in a week, 20 bushels of wheat, worth $20, and get, by sale and purchase, 20 yards of linen in return.[1] With two weeks of work, he could secure 20 bushels p us 20 yards. After the protective tax is laid, he is practically compelled to buy linen in Canada at $1.43 a yard. He can still produce 20 bushels of wheat in a week and get his $20, but for the $20 he can get only 14 yards of linen. Two weeks of work will net him 20 bushels plus 14 yards, which is 6 yards less[2] than if the tariff did not exist.

Neither can it be said that the Canadians who are tempted into linen manufacturing gain any more than, or as much as, the wheat producers lose. For we have seen that those who care to manufacture linen, employers and employees, can have all the business they want and all

[1] Minus cost of transportation, etc.
[2] Ignoring cost of transportation, etc.

the employment they want, without the tariff, if they will sell the linen at a low enough price, say $1 or less a yard, and take what the business will earn, as wages and profits, viz. about $14 a week (or perhaps, if they wish to keep linen from Ireland entirely out and monopolize the market, somewhat less). If the tariff enables them to get $1.43 a yard instead of $1, the best that can possibly be said for the tariff is that it gives the linen makers 43 cents for every 43 cents it takes away from the wheat raisers or others who buy the linen. If there is any way by which protection can give 43 cents to any protected interest, without taking at least 43 cents away from some person or persons buying the taxed article, the exact manner in which protection does this should be carefully set forth by defenders of the policy. The late Professor Sumner said:[1] "If Protection is anything else than mutual tribute, then it is magic."

But protection does worse than take from one person in the protectionist country exactly what it gives to another. In our illustration, protection does worse than take from the Canadian wheat producers exactly what it gives to the Canadian linen manufacturers. It takes *more* from the wheat raisers than it gives to those who become linen producers. The wheat raisers have to pay 43 cents extra on every yard bought, in order that the linen makers may receive $1.43 for what would otherwise be $1 worth of linen, or $20 a week in an occupation that would otherwise yield only $14. But, by hypothesis, they could earn $20 anyhow, if they would remain in the business of wheat production. Therefore, the people who do engage in wheat production have to lose $6 on 20 yards of linen in order that others may

[1] *Protectionism*, p. 160.

secure $20 a week at linen manufacturing, when these others could secure $20 a week in wheat production without taxing any one else. It would seem certain, then, that the taxed class loses *more* than the protected class gains, if indeed the latter class gains anything at all. What the situation amounts to, in our illustration, is that the people in one industry are taxed to encourage and keep going another industry which pays so ill that no one in the country would go into it if it were not favored by this policy. This is what Professor Sumner had in mind when he said that, by the whole logic of the protectionist system, the industries to be aided are "the industries which do not pay," [1] and that the process, so called, of "creating a new industry" means simply the taking of one industry and setting it "as a parasite to live upon another." [2]

Various facts brought out by the investigations of the Tariff Board would seem to show that the establishment in the United States by the protective tariff, of the wool manufacturing industry, has thus been the establishment of a parasitic industry at the general expense. We have already seen [3] that many woolen goods have been greatly raised in price because of the exclusion, by protection, of foreign goods. The home producers must receive these higher prices in order that they may receive, as a whole, as large returns as they might otherwise have secured in unprotected lines; in particular, they must charge these prices in order that the wages paid to employees may be high enough to keep the latter in the wool manufacturing business, and, therefore, that the wages may be as high as can be got in other employments.

[1] *Protectionism*, p. 48.

[2] *Ibid.*, p. 45.

[3] § 2 of this chapter (IV of Part II).

Since wages in general in the United States are high and since American woolen manufacturing concerns seem to have no special advantages either in equipment or in efficiency of labor over their foreign rivals,[1] it follows that the cost per yard of woolen cloth made in this country is high. According to the estimates of the Tariff Board,[2] the cost of turning wool into tops is about 80 per cent more here than in England, of producing yarn from the tops about 100 per cent more, and of manufacturing the yarn into cloth from 66 to 170 per cent more, according to the kind of fabric in question. The effect of protecting the woolen manufacturing industry in the United States has been, therefore, that the consumers, that is, the Americans engaged in all other lines of industry, have had to pay much higher prices for woolen goods than would otherwise be necessary, merely that those engaged in the woolen industries might receive as high profits and wages as they could get even without protection in other lines of activity. Were it not for protection they would have been engaged in these other lines of activity, perhaps largely in the production of articles for export, in transportation, and in various commercial pursuits. Protection has drawn them out of these lines at a very considerable loss to the rest of the nation and with no appreciable permanent gain to them, if indeed they have not eventually shared in the general loss. It would appear certain, therefore, that in this instance, as in general, protection has imposed a cost upon those in unprotected industries, greater than any gain which it can be asserted to have brought to those in the lines protected.

[1] Report of the Tariff Board on Schedule K of the Tariff Law, Vol. I, Part I, p. 16.

[2] *Ibid.*, pp. 16, 17.

§ 3

The Effect of Protection on the Money Prices of Protected Goods and on the Money Prices of Unprotected Goods

For a brief time after a protective tariff is levied on imports, the protected country, *e.g.* Canada, will export about as much as if trade were free;[1] but such a flow of exports will not be continuous. When, as a result of the tariff, Canada diminishes its importations, there will be, as has been sufficiently explained, a net inflow of gold. Canadian prices rise as compared to foreign prices, and, if the amount of trade and other factors remain the same, rise in exact proportion to the increase of money. If, for any reason, prices do not at once become higher than before relatively to prices abroad, the gold inflow will continue until they do. And when, because of the increase of money, prices rise, this rise of prices will affect protected and unprotected goods alike. The increase of money, with no corresponding increase of other wealth, must mean rise of prices of other wealth, else, with the greater amount of money, the demand for this wealth would exceed the supply. And as far as the increase of money *by itself* is concerned, it would affect all prices in Canada to the same extent. The primary effect, then, of the assumed tariff, is to raise the price of linen, in Canada, from $1 to $1.43 a yard, while not affecting the price of wheat. The secondary effect results from the inflow of money.[2]

[1] See § 1 (and footnotes) of this chapter (IV of Part II).

[2] Cf. *The Purchasing Power of Money*, by Irving Fisher assisted by Harry G. Brown, New York (Macmillan), 1911, p. 94. In justification of the above mode of presentation, it may be said that the drawing of labor into the protected industry (linen production), cannot permanently raise the prices of unprotected

Suppose money in Canada increases, because of the tariff, by 10 per cent. Then the price of Canadian wheat, assuming it to be produced at approximately constant cost per bushel [1] regardless of whether somewhat less or somewhat more is produced, would tend to rise from $1. to $1.10 a bushel; [2] and the price of linen would rise, in addition to the rise directly occasioned by the tariff, from $1.43 to $1.57 a yard, *i.e.* in the same ratio as the price of wheat. How largely the prices of unprotected goods produced in the United States have thus been made higher by this indirect action of the tariff, it is impossible to say, but that the prices of many such goods have been so raised to some extent, we may reasonably conclude.

Here we are brought again, by a somewhat different route, to the conclusion that a protective tariff tends towards national poverty. For, while the increased quantity of money tends to raise all money incomes in the same ratio that it raises the prices of goods, and so tends to leave people in the same relative position; yet the original and special rise in the prices of the protected

goods, *e.g.* wheat, by decreasing the supply of these goods, unless there is this inflow of specie. For no one, by our hypothesis, will leave the production of wheat at $1 a bushel unless he can get $1.43 a yard for linen, and no one would leave the production of wheat at any *higher* price than $1 unless he could secure *more* than $1.43 for the cloth. But a rise of wheat above $1 a bushel and of cloth above $1.43 and of other things in proportion, could not take place without a changed relation between currency and goods, without, that is, in this case, an inflow of money metal. A continued foreign demand for the now less produced wheat might cause a rapid readjustment, but could cause such readjustment only through purchases of the wheat (or other Canadian goods), and, therefore, only by influencing the flow of gold.

[1] At the margin of cultivation.

[2] We are supposing that the inflow of money takes place to such an extent as to have this result, either because Canada continues to export wheat until the price of Canadian wheat has thus risen 10 per cent, or because Canadian exports of other goods, perhaps goods less subject to the competition of other sources of supply, do not at once cease.

goods is due solely to the greater scarcity of those goods and the greater cost of their production, and is not counterbalanced by any increase of money incomes. There is here a net loss. The country is poorer because of the tax.

If Canada has an inconvertible paper money, then the protective tariff will have the same primary effect but a different secondary effect. It will raise the price of linen from $1 to $1.43 without changing other prices. There will be no increase of money due to a surplus of exports. Linen will rise in price because of the greater cost of production required and the greater scarcity of it in relation to other goods and to money. But wheat and, in general, goods other than linen will not rise in price.[1] Instead of a general rise in money prices bringing eventual equilibrium by discouraging purchase of Canadian goods from abroad, this equilibrium will be brought by a change in the relative values of currency, of such a sort that it requires more foreign money to purchase a given amount of exchange on Canada or to purchase the gold equivalent of a given amount of Canadian money.[2]

As we have already seen,[3] a high export tariff would act in a way directly contrary to the operation of protection, on the flow of specie and on money prices in the tax-levying country. While protection causes an inflow of specie and a rise of money prices, high export duties would cause an outflow of specie and a fall of money prices. But in its effect on national prosperity, a high export tariff would not require to be thus sharply dis-

[1] Assuming production under constant cost.
[2] See Part I, Ch. VI, §§ 6, 7, 8, 9.
[3] § 1 of this chapter (IV of Part II).

tinguished from protection. It would, as protection does, turn industry out of its natural channels into less productive channels. The difference is that, while the method of protection involves a selection of industries to be established at the general expense, a high export tariff would secure the establishment of new and less profitable industries, indirectly, by preventing production for export in the industries most profitable. Export restrictions have been applied, in the past, along with restrictions on imports, to divert labor from a relatively large production of raw materials, into the manufacture of those materials. England's statutory law, from the time of Edward III through many generations, forbade the export of sheep or raw wool, while aiming to prevent importation of woolen cloth.[1] The desire was to stimulate the making of woolen cloth in England.

It is worth pointing out that a high tariff levied by a country upon its exports, affects that country as to money prices and general prosperity, in the same way as high import duties levied on the same articles of its production by all the countries with which it trades. A high export duty levied by Canada on wheat, would have the same effect as high import duties on this wheat levied by other countries; it is indeed equivalent to a combination of all possible consuming countries to levy such an import duty against Canada. Similarly, a high import tax, *i.e.* a "protective tariff," is equivalent to high export duties levied by not one only but all other countries from which the taxed goods might come.

[1] Levi, *The History of British Commerce*, second edition, London (John Murray), 1880, pp. 22, 23, footnote; also Day, *A History of Commerce*, New York (Longmans, Green & Co.), 1907, p. 225.

§ 4

Protection to Industries in which Large Scale Production is Advantageous

When a protected industry is one of those in which large scale production is advantageous, there are, as regards the carrying on of the industry in the protectionist country, two possibilities. The first possibility is that the encouragement and further extension of home production in that industry will mean home production on a larger scale than formerly, *i.e.* few, if any, more plants, but larger product turned out by each plant. If the tariff has this effect, it means cheaper home production than before, and, if the improvement is great enough, cheaper production at home than abroad.[1]

The second possibility is that the size of establishment having the greatest efficiency is, on the average, already

[1] There is another conceivable case, which may properly be mentioned at this point, where protection might really increase national wealth. Suppose a country to be carrying on only one or a few industries and to be the only country where these industries are carried on. Those engaged in them, however, we shall assume to be subject to competition from others in their own country. In such a case, a protective tariff which should divert labor into a line unprofitable without such aid, might so restrict the supply of the goods of which the country had a monopoly, as to raise very greatly the prices of those goods abroad and so increase the country's prosperity at the expense of foreigners. But unless the country had a monopoly of the industries from which labor is turned, it could not appreciably raise the prices of the goods by so doing, for the competition of other sources of supply would keep the prices down. Furthermore, unless most of the industries in which the protectionist country is engaged are industries in which it has a monopoly, the establishment of new industries by protection will draw from other lines as well as from the monopoly lines, and will therefore not so much decrease the supply of goods in the monopoly lines and not so much raise their prices. If a country has a monopoly of only one or a few lines and those not important, *and the situation is almost certain to be no more favorable than this to the protectionist country*, then the effect of protection will so little decrease the supplies of the monopolized goods as to have slight appreciable effect on their prices. In short, as things are in the actual civilized world, the circumstances under which protection can be reasonably expected to increase national wealth probably nowhere exist.

reached before protection is granted, or, if it is not, that lack of a tariff is not the difficulty. On this assumption, the imposition of a tariff would very probably result in an increase of the number of plants engaged in the industry within the protectionist country, but not in any saving through more efficient plants. By hypothesis, increased size of plants, beyond that already reached, is no longer a saving, or will not be brought about by protection. If the industry was being carried on within the country to any appreciable extent, before the adoption of a protective policy, a change in the average size of establishments, as a result of that policy, cannot be regarded as assured. In any case, the development of efficiency resulting from larger scale production must, if it is to yield any net gain to the nation in question, be so great that the desired goods can be secured at home more cheaply than they could otherwise be imported. Large scale production in other countries and purchase of the goods from them may, in practice, better secure the national welfare.

§ 5

Protection to Industries of Increasing Cost

When commodities for home consumption must be produced within a country under conditions of sharply increasing cost and, because of limited resources, under disadvantageous conditions at the margin of production, the opportunity to import these commodities from abroad is, perhaps, particularly to be desired. The policy of protection to the home production of such goods causes, in the protectionist country, production at an increasingly greater cost according as the protection succeeds in its object. Thus, Germany's policy of protection

to agriculture, favored by the owners of agricultural land, undoubtedly means the production of food at a progressively higher cost in proportion as the protection is effective. A high tariff protective to English agriculture would probably raise the cost of food so high as to starve to death millions of the English people. An analogous consequence follows from protection to manufactures when the tariff wall safeguards the more inefficient plants against loss from foreign competition, compelling consumers to pay prices for the goods desired, which will remunerate the inefficient as well as the efficient home producers. Protection, then, forces consumers to get many of the goods they require, at greater cost, either because the production cost at home is uniformly greater, or because protection compels the use of the poorer soils, the poorer mines, the poorer sites, or because it compels the giving of patronage to establishments which are relatively inefficient.

But may it not be desirable, in case a country has a large export trade in goods produced under conditions of increasing cost, *e.g.* wheat, to establish manufactures by protection in order to draw capital and labor away from the poorer or marginal lands? Even here the protectionist policy involves a loss, though perhaps not so great a loss. It is only if and because even the poorest lands in use, following the terms of our illustration, yield 20 bushels or $20 a week in Canada compared with a possible 14 yards or $14 in the unprotected linen industry, that protection is required to establish the latter.[1] If it were more profitable than agriculture, even than agriculture on the poorer lands, it would be established without protection. If it requires protection, it is a less

[1] Cf. what is said regarding protection of this sort, in Ch. V (of Part II), § 5.

profitable business from the standpoint of the whole Canadian people, than agriculture on the best available land and, therefore, than agriculture on the poorest land actually used.

§ 6

Effect of a Country's Protective Tariff System on the Cost to it of Unprotected Goods Got from Other Countries

A protective policy, however, may conceivably give to the nation which enforces it, indirect advantages compensating in part or in whole for the losses incurred. Though the conditions under which such advantages would be at all comparable with the losses, could seldom if ever occur in practice, it is perhaps worth while to show what these conditions are. If Canada levies a high tariff on linen from Ireland, and, as a result, following the flow of gold to Canada, Canadian prices rise and Irish prices fall, then other goods, *e.g.* laces, silks, etc., may be produced in Ireland more cheaply than before. In practice, the effect would be more largely a rise of Canadian than a fall of Irish prices; for the fall of prices due to outflow of gold must eventually be distributed over many countries and would be slight in each, while the rise of prices would be felt in Canada alone. But, at any rate, since Canadians receive more for their wheat, the silk, etc., from Ireland (or other countries) can be better afforded than formerly.[1] If, therefore, the result of protection is that Canada receives more for her exports, and, while shutting out linen, gets certain other

[1] This point is stated in relation to the protective policy by Taussig, *Principles of Economics*, New York (Macmillan), 1911, Vol. I, p. 525. The principle is exactly the same as was shown to apply to import revenue duties by Mill, *Principles of Political Economy*, Book V, Ch. IV, § 6, and by Bastable, *The Theory of International Trade*, fourth edition, London (Macmillan), 1903, p. 118. Cf. also *supra*, Ch. III (of Part II), § 3.

foreign goods for a less price than formerly, so getting, for example, more silk than previously for a given amount of wheat, it is not entirely certain that Canada has lost greatly by her tariff policy.

Needless to say, this is not an argument for protection that would win it many votes. For a political campaign speaker to tell the voters of Canada that a proposed tariff will hinder a profitable trade and prevent their getting linen cheaply from Ireland, but that in consequence they may be able to buy silk somewhat more cheaply than before in terms of wheat, would not be likely to arouse any great enthusiasm. A more probable result would be a demand from silk manufacturers in Canada, or from would-be silk manufacturers, that they also receive protection. The rising money cost of production in Canada, and the tendency to falling cost in Ireland, would imperil the Canadians' home market. Especially would silk manufacturers in Canada be injured, if they had to use machinery or raw material directly raised in price by the tariff system. But if the silk manufacturing and other lines of production should also be protected, Canada would no longer gain from the protection of linen the indirect benefit suggested. The higher money incomes received in Canada are no advantage if they must be spent *in Canada*, where prices, counting prices of protected goods, have been raised even more by the tariff, than have money incomes. A consistently protectionist country can hope to realize this indirect gain from protection, only on goods not producible at home and, therefore, not protected. And the direct loss in higher prices of protected goods may be very great indeed. As we have already seen,[1] many kinds

[1] § 2 of this chapter (IV of Part II).

of woolen goods have been costing Americans some 60 to 70 per cent more because of the tariff.

In the actual commercial world, Canada is the less likely to realize much, at Ireland's expense (or at the expense of other countries), through this indirect action of the tariff, because Ireland (or any other country) has the alternative of trading elsewhere, and is not obliged to offer reluctant Canada bargains, in order to force a trade, except as Canada may have a substantial monopoly of the production of certain goods.[1] Canadians can get little, if any, more for wheat or other exported goods than before, else Ireland will refuse to buy. And rather than accept a low price for silk and other goods, Ireland may sell them elsewhere than in Canada. It is the more unlikely, therefore, that Canada will gain, thus indirectly, as much as she loses directly, through the tariff.

In so far as a protective policy results in a larger quantity of money and higher money prices in the protectionist country, it is likely to lead to a demand for a progressively higher and higher tariff. Assume, as before, a 50 cents duty per yard levied by Canada on linen. This at first makes linen cloth from Ireland $1.50, while Canadian cloth can sell for $1.43 and still yield as large a money return as the production of Canadian wheat. This enables a Canadian linen manufacturer to undersell his rival of Ireland by 7 cents a yard. But the flow of gold into Canada, resulting from the tariff, will raise, among other prices, the money cost of

[1] Even without a monopoly, if Canada supplied so much of the wheat used in Ireland and other countries that for them to substitute wheat from other sources would lower the margin of cultivation and raise wheat prices, Canada could continue to sell some wheat at slightly higher prices than before the tariff was laid. There would remain, however, the probably much more important effect of the tariff, for Canada, in the direct loss caused.

producing linen. In Ireland, on the contrary, the tendency will be towards a lower cost. Soon, therefore, the Canadian manufacturer may find that $1.43 is not a high enough price, while the linen manufacturer of Ireland, even with the tax, may sell for less than $1.50. Unless the tariff is further increased, some linen will soon be secured from Ireland; there will no longer be a net flow of gold into Canada; and Canadian prices will no longer rise as compared with Irish prices. Or, as we have seen, the same result is reached by Canadian purchase of other Irish goods. Suppose, however, that the Canadian tariff is progressively raised so as to maintain the 7 cent margin, and is raised on other Irish goods as well, and suppose that Ireland's demand for Canadian goods is not checked until money in Canada is $\frac{1}{10}$ of its former amount and in Ireland slightly less than before. Then, assuming conditions of approximately constant cost, Canadian wheat will sell for about $1.10 a bushel and Canadian linen for $1.57, while linen made in Ireland will sell, not counting the tariff, for slightly less than $1 (not much less, since any considerable fall of prices in Ireland would cause an inflow of specie from Germany, France, and elsewhere, so distributing over many countries the effect of the outflow of money to Canada). To give Canadian producers a 7 cents margin, the tariff will now have to be so high that linen made in Ireland can sell, in Canada, for not less than $1.64. Since this linen sells, without the tariff, for $1 or less, the tariff will have to be $0.64 a yard [1] instead of the original $0.50. Even a tariff to "equalize the cost of production" would need, after this change in relative amounts of money, to be $0.57 instead of $0.43.

[1] We are here neglecting cost of transportation.

But it must not be supposed that continuous extension and increase of its tariff wall can raise prices in a country without limit. Even if, as prices in Canada rise and in Ireland, or elsewhere, fall, protection is given to each article subject to foreign competition, which can be made in Canada, and even if this protection is progressively raised so as to prevent any purchase abroad by Canadians as their money incomes increase, — in short, even if all importation of goods is effectively prohibited, the rise of prices in Canada will nevertheless eventually reach a limit. For, sooner or later, Canadian prices will get so high that no goods whatever will be purchased in Canada by people in foreign countries.

All these conclusions are the same, except as to nominal prices, if we suppose Canada's currency system unrelated to those of other countries. A high tariff would not then raise Canadian money prices, but it would change the relative value of Canadian and other monetary standards so as to make purchase of Canadian goods more expensive to other countries in terms of their own money. This fact has been frequently pointed out in preceding pages. Here it is to be emphasized that it means cheaper purchase of foreign goods in terms of Canadian goods. A smaller amount of Canadian money than before will buy drafts on foreign countries for more foreign money and, therefore, goods than before, or will buy the gold equivalent of more foreign money and goods than before. Hence, Canadians are tempted, unless prevented by a tariff, to buy foreign goods which they did not previously buy and even, unless the tariff protection is increased, to buy goods on which the protection seemed, at first, adequate (though not excessive).

§ 7

A Tariff "Equal to the Difference in Cost of Production at Home and Abroad, together with a Reasonable Profit"

In view of these facts, together with the fact that the same kinds of goods are produced simultaneously at different costs, the proposition, prominently put forth in recent politics, to establish a tariff which shall "equal the difference in the cost of production at home and abroad, together with a reasonable profit," [1] is chimerical. There is no fixed difference, independent of the tariff, in the home and foreign costs of production. For the difference in these costs is dependent, to some degree, on the relative levels of prices at home and abroad, which are affected by the flow of gold, which is, in turn, at least in some degree affected by the tariff. The tariff itself, that is, helps to cause the very difference in cost of production which is set forth as a justification for it. As we have seen in our illustration, a tax of 43 to 50 cents per yard may be, at the start, the amount necessary to equalize cost of production in the protectionist and other countries, and yield a "reasonable" profit; yet later, if a protective tariff policy has been followed, a higher tax than 43 cents may seem equally necessary to equalize conditions, and this just because the tariff itself has widened the cost difference. In addition, the cost of production may be directly increased by tariff duties on the machinery and raw materials of industry.

Again, "cost of production," if not further defined, may be taken to mean marginal cost, average cost, or cost under the most favorable circumstances. Is a tariff

[1] Republican party platform of 1908, *Republican Campaign Text-Book*, 1908, p. 462.

which equals the difference in cost of production at home and abroad, to be high enough adequately to protect the marginal producer, or the average producer, or only the producer best situated? In manufacturing, is it to protect the struggling factory hardly able to maintain itself, or only the most efficient? If protection is to be given to the producer under greatest difficulties and to the most inefficient producer, the burden on consumers may be very great. Furthermore, inefficiency is in some degree encouraged, instead of being weeded out. The recent Tariff Board found in the cotton manufacturing industry of the United States not only modern establishments, but also some of low efficiency and considerable antiquity.[1] Some 60-year old spinning and weaving machinery was still in use. A system which protects producers the more highly the less efficient they are, though promulgated as a "scientific" solution of the tariff problem, would seem, in view of these considerations, very far from being such a solution. If, on the other hand, the protection is intended only to equalize conditions for the average or best producers, as opposed to foreign competitors, there is still a loss to consumers, and there is also the objection, from the protectionist point of view, that such a policy would leave without adequate protection the very producers most needing help.

§ 8

Relative Advantages in the World's Commerce of Countries having High and Countries having Low or No Tariffs

Before closing our discussion of protective tariffs in relation to national prosperity, there is one general truth

[1] Report of the Tariff Board on Schedule I of the Tariff Law, Vol. 2, p. 416.

to which we may properly give special emphasis. This truth is that, among a number of trading countries, those with low or with no tariff restrictions have the least to lose.[1] If, for example, Great Britain alone adheres to the principles of free trade, while all other nations maintain high import duties (or high export duties, or both), then Great Britain's position in trade is relatively the best. In the first place, purchasers in all other countries will buy of Great Britain rather than of countries where the large quantity of money due to protection (or where high export duties, if such were common) makes prices of goods exported by them high; and this very turning of the demand to Great Britain will enable British producers to get, for what goods they are able, despite foreign protective tariffs, to export, higher prices than if their rivals in selling each special kind of goods in a given market, were similarly untrammelled. In the second place, sellers of goods produced in all other countries, being unable to sell so easily and profitably to countries maintaining protective tariffs against them (or to countries, if there were any such, whose export tariffs make their home prices low), will be the more anxious to sell all they can in Great Britain; and they will make even lower prices in selling to Great Britain than otherwise they would, because it is so difficult to secure a market and to sell at a profit, anywhere else.

Protectionist writers have sometimes hinted that free trade, or tariff for revenue only, might be very good if all nations practised it, but that so long as other countries practise protection, we must do so in self-defence. The truth is that the best possible way for a nation to adapt itself to the conditions caused by the bad policy

[1] Cf. Bastable, *The Theory of International Trade*, p. 122.

(*e.g.* protective tariffs) of the others, is to avoid imitating that bad policy. Then it has an advantage over these others and gains trade and profit which they cannot.[1]

It does not follow that Great Britain is better off because other nations have high duties. So far as other countries become self-sufficient by means of their tariffs, Great Britain also may be forced to be more self-sufficient than would otherwise be necessary. But so far as some trade still persists, despite these interferences, Great Britain has an advantage in getting it and in gaining from it, over all the others. Each country's tariff lessens Great Britain's trade with that country and so tends to decrease the wealth of both Great Britain and the country levying the tariff. But each country's tariff hurts that country as a competitor of Great Britain in trade with third and fourth countries, and so gives Great Britain an advantage over it.

Largely, we may reasonably suppose, through the operation of these principles, the foreign commerce of the United Kingdom long since reached a volume which that of none of her protectionist rivals has yet been able to attain. Not only do the people of the British Isles trade extensively with the English-speaking peoples of their own colonies and with the United States, but their commerce is the greatest with, for example, most of the South American republics,[2] as well as with many other countries. Their ships plough the remotest seas and carry the products of English mines and factories to parts of the earth almost unknown to American exporters. Likewise, from all parts of the world come the raw materials,

[1] Cf. Sumner, *Protectionism*, New York (Holt), 1885, pp. 138, 139.

[2] See comparative statistics in any of the recent annual reports on *Commercial Relations of the United States*.

the food supplies and other goods, which the British people require and which they can buy more cheaply abroad than they can produce at home. Raw cotton they get from the United States, from Egypt, from India, to be reshipped to South America and elsewhere as cotton fabrics, or to be made up into wearing apparel for themselves. Wheat they secure from the United States, Canada, Argentina, and other countries, and they secure it, we must conclude, all the more cheaply because some of the European nations restrict its importation by means of protective duties. Wool is available particularly in South America and in Australia. In short, the whole world is a British market so far as the British people can make it so, and from countries near and far they draw the riches which other nations, by foolish tariff restrictions, shut away.

§ 9

Summary

The general conclusion of this chapter is that a protective tariff reduces, and may reduce considerably, the total wealth of the country which adopts it. By as much as it hinders imports, by so much it must, in the long run, interfere with the development of an export trade. It diverts the productive force of a country from lines in which it is relatively effective to lines in which its effectiveness is less. Even if those who are protected gain some benefit from the policy, they gain less than others in the country lose. Protection tends to raise all money prices, including money incomes, in the protected country. But there is a special rise of price of protected goods, not balanced by any rise of money incomes.

Therefore, prices of goods rise, on the average, more than money incomes, and the general prosperity is reduced. It is conceivable, but improbable, that protection of some industries may result in larger establishments within the protectionist country and a gain in efficiency enough to make home production as cheap as foreign. When an industry of increasing expense (diminishing returns) is protected, the injurious effects on national prosperity are the greater, the more the tariff extends the industry. Protection may give to a country indirect advantages in the form of better rates of interchange on other, unprotected goods, but this gain is not likely to be great, since other countries have the option of trading elsewhere than with the protectionist country. If such a gain were likely to be realized, there would probably be a demand, in the protectionist country, for the taxation of imports of these other goods in so far as they could be produced at home, and so a partial prevention of the gain.

If protection is applied moderately but upon many goods, so that the scale of prices in the protectionist country rises compared with others, even some of the protected goods may come to be imported to some extent from countries whose prices have not thus been artificially raised. If so, there is likely to be a demand for further protection. The proposition to levy a tariff which shall be equal to the difference in cost of production in the protected country and abroad, overlooks the fact that this difference in cost is, to some extent, a consequence of high protection. It overlooks, also, the fact that cost is not the same in all establishments or on all sites, within a single country.

Despite the frequent claim of some protectionists that

any one country must adopt a protective tariff system because others do, the truth is that a country which, among others having high import duties (or export duties or both), maintains free trade or only low tariffs, has an advantage, because of this policy, over all the others.

CHAPTER V

The Effects of Protection on the Distribution of National Wealth among Economic Classes and Territorial Sections

§ 1

Effect of Protection on the Rate of Interest and Therefore on Wages

In discussing the effects of a protective tariff on the distribution of wealth and income among economic classes, it is important that we have in mind some idea of the laws according to which wealth and income are divided. The benefits, or the wealth and income, resulting from production are said to be divided among capitalists, laborers, and land owners. Capitalists receive interest; laborers receive wages; land owners receive rent.

Interest arises, in large part, from the surplus productivity of indirect or roundabout production, over direct.[1] Men can produce consumers' wealth and income by applying labor with the aid of existing machinery, or they can devote time to increasing the amount of machinery in order to get, later, larger results. The second method is more indirect or roundabout. It

[1] It is not claimed that the theory of interest as here briefly stated is complete, or anything but a working theory sufficient, perhaps, for the requirements of this chapter. The subject of interest is so interwoven with other economics, that it cannot be satisfactorily treated in a few paragraphs. The critical reader is referred to the writer's article in the *Quarterly Journal of Economics*, August, 1913, entitled "The Marginal Productivity *versus* the Impatience Theory of Interest," and to a later article in *The American Economic Review*, June, 1914, on "The Discount *versus* the Cost of Production Theory of Capital Valuation."

yields, in general,[1] a surplus product over what can be secured by the more direct method. But roundabout production, *i.e.* production by first making tools, machinery, etc., yields a smaller surplus the further it is extended. The more tools, machinery, and other capital equipment we have (after a certain point is reached), the less desirable is it further to increase this equipment. The gain or surplus from so doing becomes smaller and smaller, yet for a long time, perhaps indefinitely, remains a gain.

But thus to extend the roundaboutness of production requires a supply of goods for the present maintenance of those occupied in constructing the necessary capital, since they, being engaged in roundabout production, cannot secure this present maintenance from their present labor. Possession of goods which may serve as means of maintenance for laborers during the roundabout production process, enables production to be carried on thus indirectly with the consequent larger product. For this reason, a surplus in future goods will be paid for a given amount of present goods; $100 to-day may buy $105 next year, for $100 to-day makes it possible to turn away from production for immediate needs and to produce, by the usually larger yielding indirect method, for the future. For the use of the present consumable goods which make indirect production possible, a premium will be paid by those desiring control of the present goods; and this premium will depend on the gain which indirect production yields. The possessors of command over present goods, on the other hand, will not trade them for future goods except for a premium,

[1] Not necessarily, but unless the indirect process is expected to yield more, it will not be adopted.

because these present goods can be used in support of themselves and those they hire and so can make it possible for them to engage in roundabout production and reap the surplus. To dispose of their command over present goods is, in so far, to give up this possibility, and they will not give it up without compensation. The rate of interest, then, is determined, on both the supply and demand sides of the market,—the side of those who want and that of those who have command over present goods,—by the rate of surplus productivity[1] of roundabout over more direct production.

To recapitulate, the more largely production is roundabout or capitalistic, the larger is the total amount of wealth and income yielded; the more largely production is capitalistic, the less additional gain is realized by the further extension of roundabout production; the greater the accumulations of society, and the further indirect production is extended, the lower (other things equal) is the rate of interest. Large accumulations and great extension of roundabout production make social wealth greater, the rate of interest lower, the rate of wages higher. We saw, in the last chapter, that a protective tariff tends to decrease the productive efficiency of a country which applies it. Such a tariff makes more difficult the process of accumulation. It tends somewhat to lessen the degree of roundaboutness in production, to lessen the extent to which production is capitalistic. Protection, therefore, because it lessens national wealth through turning industry into less profitable channels, may lessen national wealth further by making production less capitalistic. If it does this, it will tend to raise the rate of interest, though not necessarily the total amounts

[1] At the margin of indirect production.

received as interest since the higher rate will be on smaller capital; while it will tend to reduce wages both by giving to capitalists a larger proportion of the results of roundabout production and by making production, on the whole, less roundabout and, therefore, less efficient. This indirect effect which a protective tariff may have on wages, through its effect on accumulation and the rate of interest, is without doubt very much less important than the more direct effect to be next discussed, but its operation, so far as it does affect wages, is unfavorable.

§ 2

Brief Statement of Laws of Wages and Land Rent

The general level of wages is determined, like other prices, by supply and demand. The wages which will equalize supply of and demand for labor will be higher or lower according as labor is more or less productive. Should the productivity of labor double, wages would double. For if labor would produce twice as much as before and wages did not rise correspondingly, the profit to be realized in hiring labor would be very great. This would increase the demand for labor until, if wages did not rise, demand would exceed supply. Hence, wages must rise and must rise in proportion. We have reference here to real, as distinguished from money, wages; that is, to the necessaries, comforts, and luxuries which wage earners receive, rather than to the mere number of dollars.

If all land were equally fertile and all sites equally good, and if desired land and space were unlimited, wages would equal the whole product of labor except interest. Those who advanced the means required to make pro-

duction more roundabout, would enjoy interest; beyond this, labor would get the entire product of industry. But all land is not equally fertile; all sites are not equally satisfactory; land and space are not unlimited; and there is to be reckoned with, the great law of diminishing returns. Whether in agriculture, manufacturing, or other work, an increase of labor upon any given space or area will not, beyond a certain point, result in a proportionate increase of the product. Two men, on a 100-acre farm, may secure twice or more than twice as great a result as can one. But it is pretty certain that two hundred men, working on that farm, will not secure 100 times as large a product as can two men. So, in manufacturing, a point of maximum economy is reached, beyond which it does not pay to crowd men together on a limited area or to build story upon story, but beyond which larger production requires more land. Since all land is not equally good, this means that larger production requires the use of less productive land and sites than would otherwise have to be used.

To illustrate the bearing of these facts upon the theory of wages and rent, let us consider the case of a 100-acre farm. Upon it, two men might be able to produce wheat at the rate of 3120 bushels a year or an average of 60 bushels a week, three men an average of 85 bushels a week, four men 105 bushels, five men 120 bushels. Then the third man adds 25 bushels to the product which would result from two men's work; the fourth man would add 20 bushels; the fifth, 15 bushels. Suppose that wheat is $1 a bushel. Then, if wages are not more than $25 a week but are enough less to pay interest on the wages advanced, the owner of the land will hire three men to cultivate it. He will not hire a fourth, since a fourth will

add but 20 bushels, worth $20, to the product. If, however, wages are slightly less than $20 a week, he will hire four men; and if they are slightly less than $15, he will employ five. The higher wages are, the fewer men he will employ. The lower wages are, the more men he will employ. This is true of all employers. Some land is so poor that no one can afford to work it or hire others to work it, if wages are high. If wages are low, this land can be worked profitably. In general, the lower wages are, the greater is the demand for labor. More men are desired on the more productive sites and men are desired for the utilization of sites that otherwise would stand undeveloped. At any level of wages, employers will hire men up to the point where the last man hired just produces his wages or just produces his wages plus interest.

To the extent that industry is carried on under nearly constant cost, a great amount of labor can be employed at wages almost as high per man as would be paid to a smaller number of laborers. Very little reduction of wages is required to increase, greatly, the demand for labor, since many employees can be hired before the worth of the last man (the marginal product of labor), becomes less than his wages. If, on the other hand, industry is carried on under conditions of sharply increasing labor cost (diminishing returns), any considerable increase in the demand for labor (other things equal), will not take place except at greatly reduced wages. If, therefore, the industry of a country is forced into a line of sharply increasing labor cost, real wages must become lower; though it is likewise true that if industry is forced into a line of constant labor cost into which it would not naturally go, real wages will probably become lower.[1]

[1] See § 5 of this chapter (V of Part II).

Ignoring interest, the law of which we have already stated, the surplus of production above the amounts paid as wages constitutes land rent and goes to the owners of land. In our illustration, at wages of $20 a week or slightly less, not more than four men would be employed on the given farm. No one of them would be employed at more than $20 wages, because no one of the four adds more than 20 bushels or $20 to what the product would be without him. The weekly wages of all four will not, therefore, exceed $80. The total product, however, with four men working, is 105 bushels or $105 worth. This leaves $25 a week as land rent to the owner of the farm. If wages were lower, not only would more men be employed, but rent would be higher. If wages were higher, fewer men would be employed and rent would be lower. Some land will yield higher rent; some is so poor as to yield no rent.

When protection turns the industry of a country into a line which it otherwise would not follow, the rents of lands or sites required in this line tend to rise, and the owners of these lands and sites become more prosperous. On the other hand, the rents of lands or sites which were used in the lines from which industry has been turned, tend to fall, and the owners of these lands and sites become less prosperous. Our task is to inquire what, in general, is the effect of protection on the total rent payments and on the general level of real wages in the protectionist country.

§ 3

The Effect of Protection on Wages when Protected and Unprotected Goods are Produced in the Protectionist Country, under Conditions of Substantially Constant Cost

Let us, to begin with, consider the effect of protection on wages, when both protected and unprotected goods are produced, in the protectionist country, under conditions of substantially constant cost. Under these conditions, a tariff will not greatly affect land rent. The first effect of protection is, as we have seen,[1] to raise the prices of protected goods by not more than the amount of the tariff, without affecting money wages. The secondary effect of protection, resulting from the inflow of money (so far as protection occasions such an inflow), is to raise prices of unprotected goods and money wages, and to further raise the prices of protected goods. Canada's protective tariff on linen has, as its first effect, a 43 cents or a 43 per cent rise in price per yard, wages remaining the same, viz. about $20 a week (a week's labor producing 20 bushels of wheat worth $1 a bushel). The second effect may be to raise everything 10 per cent. If, under conditions of constant cost in all lines, there is such a general rise of prices due to money inflow, we must suppose that, until this rise reaches 10 per cent, there will be *some* Canadian goods still sufficiently in demand elsewhere to maintain the inflow of gold, though wheat, because of competition from other sources, may not be such a good. Assuming such an average secondary rise of 10 per cent, and that all goods are produced under conditions of constant cost, this rise must affect any one kind of goods, *e.g.* wheat. Otherwise, those producing

[1] See Ch. IV (of Part II), §§ 1 and 2.

that kind of goods will turn to some other line. If wheat cannot be exported at the higher price, only enough will be produced for home consumption, and the other wheat producers will become linen producers, etc. Then the total increase of wheat in price is 10 per cent, and of money wages 10 per cent, but of linen 57 per cent (43 per cent and 10 per cent more added to the new price of $1.43 makes $1.57). Obviously, the average wage earner's condition is worse because of the tariff, even though his money wages are somewhat higher than otherwise they would be. If the protectionist country has an inconvertible money system unrelated to foreign systems, money wages and unprotected goods will remain the same in price as before, while protected goods rise in price. Wage earners will be worse off. With a common money standard, gold, for the countries trading, prices in the protectionist country, even of unprotected goods, rise, and wages rise in the same proportion; but since wages rise in no greater proportion, and since protected goods do rise in price by a greater proportion, real wages are lower.[1]

Our conclusion as to money wages is only that a high tariff will tend to make them higher in a given country

[1] A restrictive duty on the export of wheat would cause an outflow of gold and a fall in the general level of prices but would likewise reduce real wages. The decreased market for wheat would lower its price in Canada and would lower in the same degree (assuming it to be produced under conditions of constant cost) the money wages of producers. But the price of linen, into the production of which Canadian labor might in considerable degree be eventually forced, could not, since Canada is at a relative disadvantage in its production, fall, to the same extent, below the price at which it was previously imported. At that price, outflow of money for linen would cease. Under the conditions of production assumed, Canadians could better afford to produce wheat even for but 70 cents a bushel than to produce linen for appreciably less than $1 a yard. Twenty bushels at 70 cents a bushel or 14 yards at $1 a yard would alike yield but $10 a week. A week's wages would buy as much wheat as before but less linen. Hence, real wages would be lower because of such a tax.

than they would be in that same country in the absence of the tariff. It does not follow that money wages will be, necessarily, higher in a protectionist country than in a free trade country. In a prosperous country, money wages as well as real wages will be, other things equal, higher than in a country not prosperous. In the United States, for example, average money wages, as well as average real wages, are higher than in Europe. This is due to the fact that in many lines we have great natural resources without having too dense a population. We are productive in many lines of agriculture, particularly perhaps in the raising of wheat, corn, and cotton. We are also productive in certain lines of manufacture, having, for example, in Pennsylvania and in Alabama, great advantages for the manufacture of steel and steel products. In these various lines of effort, the United States is so productive that, even with reasonably low prices received for the goods, the daily wages of labor in these lines are high compared with European standards. Since we are, in these lines of activity, so productive, those in all other lines of industry must get equally high wages or they will go into these. That is, assuming open competition, the national prosperity cannot be confined to any one occupation. Thus, since our wheat raisers and steel producers are prosperous, our bricklayers, carpenters, plumbers, etc., need to be well rewarded to keep them in their work. Therefore, the prices of houses and of other goods which cannot be imported, and in producing which this country does not have the superiority that it has in cotton, wheat, steel, etc., will be high.

From these considerations it would appear that if wheat, cotton, steel, and some other lines of industry are, in the United States, exceptionally productive, it is the

most economical policy for us to import other products which we can obtain more cheaply abroad, rather than to employ our own high-priced labor in relatively unproductive effort. The prosperous country ought to have higher money wages, but not higher prices of importable commodities except as transportation and distributing costs make them higher. The fact that we have great natural resources in comparison to population, and that our labor is in some lines very productive, should make us immensely more prosperous than the older and more crowded countries whose resources in comparison with their populations are much less than ours, and should make real wages markedly higher here. For decades we have had a tariff policy admirably adapted to raise the cost of living and decrease our prosperity. If we have been prosperous and if our wages have been high, it has been in spite of and not because of the tariff. Comparing two European countries, England and Germany, the former the stock example of free trade, the latter a protectionist country, we find prices some 18 per cent higher in Germany and money wages lower.[1]

[1] See "A Comparative Study of Railway Wages and the Cost of Living in the United States, the United Kingdom, and the Principal Countries of Continental Europe," Bureau of Railway Economics, Bulletin No. 34, Washington, D.C., 1912, pp. 11, 35, and 67. In the same Bulletin (p. 11), it is shown that railway wages in the United States in 1900–1910 averaged $2.23 per day as compared with wages in England and Wales for 1910 of $1.067. It is also shown (p. 67) that prices in the United States for goods in workmen's budgets in 1909 were 38 per cent higher than in England and Wales. It appears, therefore, that despite the tariff, naturally favoring conditions have kept American real wages somewhat higher than English wages, but not so much higher as a comparison of money wages alone might lead us to suppose. Comparative railway wages are probably as good an index of comparative wages in general as is available.

§ 4

The Effect of Protection on Wages and Rent when the Protected Goods are Produced under Conditions of Sharply Increasing Cost

Still assuming the unprotected product, wheat, to be produced in Canada at so nearly constant cost that the withdrawal of some labor into linen making will not appreciably lower the price of wheat, let us suppose the conditions to be such that linen manufacturing, in Canada, can be extended only at increasing cost. We may suppose, for instance, that there are a very few sites favorably located near sources of cheap power and on transportation lines, and that upon these sites linen can be produced, even in Canada, for $1 a yard, or, at worst, for less than $1.43. But most of the desired supply, in the absence of protection, is obtained from Ireland. Protection, by shutting out the supply from abroad, encourages the use of the poorer sites in Canada, since the better sites, by our hypothesis, cannot produce enough to satisfy the demand. To remunerate producers on the poorer sites, the price must be higher, say $1.43 a yard. If it is not, producers on the poorer sites cannot pay the prevailing rate of wages. If it is, producers on the better sites have a surplus or rent, since production costs them, in wages, less money per yard than it costs producers on the poorer sites.

Otherwise expressing the matter, we may say that a week's labor in Canada will produce 20 yards of linen on the better sites, but only 14 on the poorer sites. If the poorer sites are to be used, wages cannot be more than 14 yards a week or the money equivalent of 14 yards. But the owners of the better sites have a surplus, after

paying these wages, of 6 yards or the money equivalent of 6 yards.

So far, then, as Canada supplies itself, after the protective policy is adopted, with Canadian linen manufactured on the most favorable sites, there is no national loss. Wages, that is, real wages, are lower. The rents of the favorable factory sites are higher. Money wages are not lower, but linen is higher in price, and the rise goes to increase the incomes of land owners. So far as Canada supplies itself with linen from the less advantageously located factories, the higher price means a loss to wage earners with no corresponding gain to the owners of land. Under the conditions of production here assumed (production of linen under conditions of increasing cost and of wheat at nearly constant cost), the protective tariff would indeed decrease the net wealth and income of the protectionist country, but the land owning class would gain.[1] Rents of lands required for the protected industry (assumed to be of increasing cost) would rise to a greater degree than rents of lands required for unprotected industries (assumed to be, within limits, of nearly constant cost) would fall. The total national loss in yearly income would therefore be less than the loss of the wage earning class alone. Part of the loss of the wage earning class would be absolute national loss; the rest would be loss balanced by land owners' gain.

No essential corrections need to be made in these conclusions because of the inflow of money resulting from

[1] A similar result, except that there would be an outflow of money and a fall of money prices, would follow, under our assumptions, from a restrictive export duty on wheat. Such a duty would prevent production of wheat for export, drive some Canadian labor into other lines, *e.g.* the manufacture of linen, even though for small returns, reduce real wages, and raise the rents of land and sites required in the newly expanded lines of industry.

protection. Under the assumed conditions, the secondary rise of prices so caused would affect rents, wages, and nearly all prices, alike.

Duties of the special kind here criticised, we have had in plenty in our own various protective tariff acts. Our protective tax on coal, compelling resort to the poorest native mines in preference to securing some coal from abroad, has doubtless tended to increase the value of native mines and the profits of mine owners, but has done this only at the greater expense of the wage earning public. The protection accorded to raw wool by the much criticised schedule K of the Payne-Aldrich tariff bill, certainly tended to encourage the production of wool in the United States on lands which, otherwise, it would not have paid to use for that purpose. The owners of lands used for sheep raising were doubtless in many cases able to realize larger profits or higher rents, but only at the greater expense of others, largely the wage earners.

In estimating the relative costs of production of raw wool in different countries and in different parts of the United States, the Tariff Board subtracted the receipts to sheep raisers from other things than the wool, chiefly from mutton. There was left, in their reckoning, a cost which the wool must cover. This surplus cost they found to be nothing in New Zealand and on the favorably situated runs of Australia, a very few cents a pound for Australasia in general, 4 or 5 cents a pound for South America, 9½ cents a pound for the United States, 11 cents for the "fine" and "fine medium" wools of the American west, and 19 cents for the fine wools of Ohio and the contiguous territory.[1] The effect of protection

[1] Report of the Tariff Board on Schedule K of the Tariff Law, 1912, Vol. I, Part I, pp. 10, 11.

(now, fortunately, removed from raw wool) has been to shut out very largely the lower priced foreign wool, to compel the use of the high-priced American wool, to make wool production profitable on lands relatively unsuited for it, to make the rental value of these lands higher, and to make real wages lower. In the opinion of the tariff board, the highest production cost in the world, of the merino wools largely required by American mills, is in the state of Ohio and near-by surrounding territory;[1] yet a high protective tariff on raw wool so shut off the supply from abroad as to cause large production of it in that region. That the general effect of this protection to raw wool, accorded by the Payne-Aldrich tariff bill, must have been to lower wages while probably raising the rents of land owners, hardly seems open to serious question.

§ 5

The Effect of Protection on Wages and Rent when Unprotected Goods are Produced under Conditions of Sharply Increasing Cost

We may now consider a third possibility as to costs of production, viz. that the protected goods, *e.g.* linen, are produced under conditions of nearly constant cost, while the unprotected goods, *e.g.* wheat, are produced under conditions of increasing cost. Under these circumstances, not much labor can be turned into linen manufacturing without lowering the marginal labor cost of producing wheat. For as labor is diverted from wheat to linen production, the poorer wheat lands are deserted, and on the better lands a week's labor can produce more than 20 bushels. If, therefore, Canada's

[1] Report of the Tariff Board on Schedule K of the Tariff Law, 1912, Vol. I, Part I, pp. 10, 11.

tariff effectively excludes foreign linen, either Canadian linen will sell for more than $1.43 a yard or Canadian wheat for less than $1 a bushel or both such changes will occur. Otherwise no one will desert any but the very worst wheat lands in order to produce linen. Competition of wheat raisers who would rather sell wheat for less than $1 a bushel than linen for only $1.43 a yard will tend to keep wheat prices down. Reluctance of such persons to produce linen will tend to keep linen prices up. The ratio of the value of a bushel of wheat to the value of a yard of linen must lie at such a point that returns to marginal producers (*i.e.* producers having the least favorable situations, but whose goods are nevertheless demanded), shall be about equal in both lines. Hence, it will take more than 20 bushels of wheat to equal in value 14 yards of linen. If Canada were financially isolated and the quantity of money in Canada remained unchanged, we should expect that the changed conditions of cost would be accompanied by both a rise of linen and a fall of wheat prices. Unless there was an increased quantity of currency in Canada, a rise of the price of linen above $1.43 a yard could hardly take place (other things equal) without a fall in the price of wheat below $1; and unless there was a decreased supply of currency, wheat could hardly fall below $1 without there being a rise in the price of linen above $1.43.

But with Canada maintaining a gold standard, the common standard of most of the commercial world, and having a foreign market for her wheat, the price of the wheat cannot greatly fall. Any tendency of the price to fall, in Canada, would be counteracted by exportation and sale abroad at world market prices. Any change in relative values will be through a rise in price of linen

above $1.43, rather than through a fall in price of wheat below $1. Since importations of goods into Canada are interfered with, there must be for a time a net money inflow, and there must be a money inflow for wheat if and so long as it sells for much less than $1 a bushel. This inflow of money into Canada tends to raise average prices in the proportion of the money inflow. Were the wheat produced under conditions of approximately constant cost, the inflow of money must necessarily tend to raise its price in the same proportion. For, since it raises prices generally in that proportion, the industry of wheat raising must yield correspondingly larger money returns or it would be less profitable than others. But under conditions of increasing cost, the circumstances are different. On the better lands, the profits of wheat raising, even with the higher money cost of production and at a price little if at all higher than before the tariff was laid, will be sufficient to keep those lands under cultivation.[1] Rather than turn to the protected industries, such as linen manufacture, until Canada only produces enough wheat for her own use and has none for export, and until wheat has risen in price in the same ratio that money has increased, Canadian farmers on the better lands will prefer to remain producers of wheat. This will result in a supply sufficient to keep the price from rising very much above the former price. In fact, if we assume wheat production to be the line of industry in which Canada is relatively the most efficient and wheat to be Canada's chief or only export, we must conclude that Canadian wheat cannot rise to a much higher price than before, despite the inflow of money. For wheat can be secured in large quantities from many other sources of

[1] Though less intensively than before.

production, and if Canadian wheat rises greatly in price, foreign demand for Canadian wheat will decrease, Canadian producers on the poorer lands will give up wheat production, and Canadian producers on the better lands will accept world wheat market prices rather than abandon wheat production. The sale abroad of Canadian wheat and of nothing else cannot, by causing an inflow of gold, raise the price of Canadian wheat very much above this world market price, since, before it does so, foreign purchase of Canadian wheat will cease, the inflow of gold will cease, and the rise of prices will cease.[1]

Assume that, as a result of protection, Canadian money increases by 10 per cent. We have seen that average prices will tend to rise by 10 per cent, in addition to the original 43 per cent rise of the protected linen. We have seen that, under our supposed conditions, wheat prices will remain substantially unchanged. Since wheat remains at about $1 a bushel, linen will rise to more than $1.57 a yard and wages will rise to more than $22 a week.[2] It follows that there is a possibility of gain, for wage earners, from a limited application of protection; though, as we shall see, the probability of this gain being realized in practice is remote. So far as they are consumers of protected goods, wage earners lose because of the rise in prices of these goods, occasioned by the tariff. But so far as wage earners are able to buy at substantially the former prices, goods produced under conditions of increasing cost, while having money wages

[1] Canadian prices cannot rise indefinitely in relation to foreign prices unless Canada is such a centre of gold production that prices rise without export of goods and unless, also, all imports are forbidden, and so outflow of this gold is prevented.

[2] That is, by more than 10 per cent on $ 20.

greater by more than the average rise of prices, with which to buy these goods, they are gainers.

On the other hand, owners of land — in this case, farming land — are losers. And they lose more than wage earners gain. Land which it previously paid to cultivate can no longer be cultivated with profit. Land which previously yielded a large surplus, after wages were paid, now yields a smaller surplus. Since the wheat land owners (and that means, in large part, the farmers), get practically no higher prices for their wheat, the higher money wages which they have to pay are to them an unbalanced loss. So are the higher prices they must pay for protected and other goods. Their loss through having to pay higher wages to those they employ is not cancelled for the nation as a whole by a corresponding gain to their employees, since the latter have to pay higher prices for linen. Neither are the higher prices which farmers and other land owners must pay for linen balanced by the higher money wages paid to linen makers, for these wages are higher only by virtue of the secondary rise resulting from the inflow of gold (the original 43 cents rise directly due to the tariff merely making it possible to get the *same* wages in linen making as were previously given in wheat producing); while both the original rise which does not raise wages and the secondary rise which does, must be borne by farmers desiring to purchase linen. It seems fair to conclude, therefore, that if wage earners ever do gain by a protective tariff, they gain at the greater expense of farmers or some other class. As shown in the previous chapter, average wealth is decreased.

The conclusion that a protective tariff establishing an industry of relatively constant cost, and decreasing the ex-

tent of an industry of increasing cost, might raise wages at the expense of land rent, applies equally if we suppose the protectionist country to have an inconvertible paper money which will not be increased by an inflow of gold. Suppose Canada to have such a currency. Then, as we have seen,[1] the original rise of linen to $1.43 is not followed by the 10 per cent further rise in the average of prices. But the value relation of foreign money to Canadian money will change,[2] so that it takes more foreign money than before to buy a given amount of Canadian money, and therefore of Canadian goods. To tempt wheat producers away from any but the worst lands will require a rise of linen above $1.43. On the other hand, the price of wheat will fall below $1 a bushel, since it can be produced more cheaply on the better lands and since the greater value of Canadian money compared to foreign money will prevent the export of any wheat except at less than $1 a bushel. Money wages will remain about the same, $20 a week. Wheat will be cheaper. Wage earners may be better off, but, if so, only at the expense of even greater loss to agricultural land owners.[3]

The possible gain of wage earners and loss to agricultural land owners and farmers, can perhaps be most clearly shown if we omit reference to money and money prices. When the Canadian tariff shuts out linen from abroad, the value of linen, in Canada, will rise in terms

[1] Chapter IV (of Part II), § 3.

[2] See, for example, Part I, Ch. VI, §§ 6, 7, 8, 9, and Part II, Ch. IV, § 3.

[3] A restrictive export tax on wheat might have a like result on the relative interests of economic classes, though having an opposite result on the general price level. Such a tax would cause prices to fall and would drive industry from wheat raising into other lines. But it might, conceivably, by preventing production of wheat for export and forcing out of cultivation the poorer lands, reduce wheat prices, in Canada, more than it reduced prices in general or money wages.

of wheat until it becomes profitable for men to leave off cultivating the less fertile and less desirably situated lands, in order to manufacture linen. Instead of 20 bushels buying 20 yards, as before, when the linen was purchased abroad, 20 bushels will buy less than 14 yards and 14 yards will buy more than 20 bushels. For if 14 yards of linen would buy but 20 bushels of wheat, only those on the very worst lands, if even those, would find it profitable to change from wheat to linen production. If, when a new equilibrium is reached, the worst lands still cultivated, and the marginal labor on all wheat lands, yield 25 bushels a week per cultivator,[1] while it requires a week's labor to make 14 yards of linen, then 25 bushels will exchange for 14 yards. Since considerable labor is diverted into linen manufacture at a wage of not more than 14 yards (or its equivalent in other form), a week's wages in wheat production will be not more than and not much less than 25 bushels a week (or the equivalent in other form). At any appreciably less wage, demand for labor would exceed supply, because at any less wage it would pay to hire more men, to cultivate land more intensively, and to cultivate worse land, while at any less wage, labor could not so easily be kept from the linen factories and at work on the farms. Wages in terms of linen are less (14 yards instead of 20) because of the tariff. Wages in terms of wheat are greater (25 bushels instead of 20) because of the tariff. If the wage earner has occasion to consume much wheat and to use little linen, his real wages, in this very hypothetical case, will be higher.[2] Owners of

[1] That is, if the last man hired adds that much to the total product. See § 2 of this chapter (V of Part II).

[2] Cf. Loria in the *Journal of the Royal Statistical Society*, Vol. L, on "Effects of Import Duties in New and Old Countries," 1887, pp. 408–410; Patten,

wheat lands, including farmers, will lose what the wage earners they hire gain, and will lose, besides, from the higher price of linen in terms of wheat. The wheat-producing wage earners will not gain in real wages what the farmers who pay them lose, for it will take more wheat than before to buy 14 yards of linen. Neither will the linen-making workmen gain as much from the higher price of linen in terms of wheat, as the wheat producers and owners of wheat lands lose, for the linen makers gain what the wheat raisers and land owners lose, only to the extent that they trade their linen wages for wheat. So far as they themselves have some use for linen, they also lose.

We are brought back, then, by another route, to the conclusion that a protective tariff will only add to the wealth or income of one person or class by taking a larger amount of wealth or income away from some other person or class.[1] It is conceivable, though, as we shall

Economic Basis of Protection, Philadelphia (J. B. Lippincott Co.), 1895, Ch. V; and Bastable, *The Theory of International Trade*, fourth edition, London (Macmillan), 1903, p. 105.

[1] A number of economists (*e.g.* Sidgwick, Edgeworth, Carver) have apparently been led to the opinion that protection might not only raise wages but might even increase the total national wealth by drawing labor out of lines of increasing cost; or that the removal of protection to manufactures and other industries of relatively constant cost might decrease national productiveness as well as reduce wages. Sidgwick, for instance, imagined a protectionist country of limited natural resources suddenly becoming a free trade country, and its manufacturing population, previously protected, being thereupon undersold by foreigners and driven out of business and being unable to obtain employment in agriculture (*The Principles of Political Economy*, London, Macmillan, 1887, pp. 496–498). But if agricultural resources were in such a country so limited as to give little or no employment to the former manufacturing population, then this population would remain chiefly or entirely in manufacturing, accepting the lower wages required for competition with the imported goods. This, however, could not possibly decrease the national wealth (except as the reduced wages might affect efficiency) for the land owners would gain as much as the wage earners would lose. Employment, at some level of wages, would continue, and production would continue. If, with removal of protection, it proved possible

see, far from probable,[1] that wage earners may be the gainers and land owners the losers by such a policy.

Let no one welcome this conceivable consequence of a carefully devised tariff system, on the ground that the situation or fertility rent secured by the owners of superior land, is unearned. Assuming that it is unearned (and it is no part of the function of this book to discuss at length whether or not land rent is unearned), a change in the taxing system securing to the public its full rights to any such unearned wealth or income would be more sensible than a partial loss of such wealth or income

to employ more productively in agriculture even a few of those previously engaged in manufacturing, the total national wealth would be increased even though wages might fall. The discussions on this phase of protection between Professors Bastable and Edgeworth, in the *Economic Journal* (Vol. X, 1900, pp. 389–393 and Vol. XI, 1901, pp. 226–229 and 582–590) seem to the present writer not to bring out clearly this distinction between the effect on national wealth and the effect on wages. (See also Bastable, *The Theory of International Trade*, pp. 187–197.)

Carver (Publications of the American Economic Association, Third Series, Vol. III, pp. 176–182) uses a different illustration to establish what seems to be the same conclusion as that of Sidgwick. He supposes a piece of land which, in the absence of protection or some form of legal discrimination, will allow the employment of one man in sheep raising, while it might otherwise employ 20 men in wheat production.. The total product, he assumes, would be greater in the latter case; but the land owners' rent, if trade were thus interfered with, would be lower. Removal of restrictions might throw 19 men out of work. In criticism of this view it is to be said that there are two extreme possibilities. Either the 19 men have a preferable alternative, under the free trade régime, to wheat raising, or they have not. If they have not, they will accept low enough wages, rather than be unemployed and have nothing, so that the land owner can realize as much rent for his land (or more) as if he used it for a sheep run. Unless their efficiency is thus impaired, they will then produce as much wheat as if they were protected. The effect of freedom from restriction may be seen in lower wages and higher rent, but not in decreased national wealth. If, however, they have a preferable alternative, these 19 men will not raise wheat but will occupy themselves otherwise at higher wages than wheat raising under free trade would yield them, while the land owner will at the same time realize the higher rent assumed to result from using his land as a sheep run. Free trade would then, also, raise rent more than it would lower wages.

[1] Shown in remainder of this section (5).

because of restrictions on trade. At any rate, those who support protection with the argument that it can be made to benefit wage earners at the expense of land rent, should be the last to oppose direct taxation of rent.

In practice, the likelihood of devising a tariff which shall benefit wage workers at the expense of farmers is extremely small. Such a tariff must, in the first place, turn enough labor from agriculture into other lines to raise, appreciably, the margin of cultivation. That is, so much of the poorer land previously cultivated must be left uncultivated, that the poorest land remaining in use is appreciably better than the poorest land which was in use. Otherwise, wages in terms of wheat cannot be appreciably higher, for owners of the poorer lands cannot pay higher wages, and, unless labor is so strongly drawn into other lines that they have to, owners of the better lands will not. To have any appreciable favorable effect on wages, protection must, therefore, set up large industries or many industries, giving employment to many men.

But if protection is to be of benefit to wage earners, it must be levied on goods consumed not at all or only to a very limited extent by them, and on no other goods,[1] so that any rise of money wages which may take place, shall not be more than offset by higher prices of goods workingmen have to buy.[2] The problem of drawing a large amount of labor away from agriculture (usually regarded as an industry of increasing cost, though it is by no means always an industry of rapidly increasing

[1] Or, at least, only slightly on other goods.

[2] This loss to wage earners is borne not the less if they buy goods made by machinery which has been raised in price by protection, or transportation from railway companies, etc., which have to charge more because of expensive materials.

cost) into industries (*e.g.* many kinds of manufacturing) of relatively constant cost, and selecting, as industries into which to draw this labor, only those producing goods little used by the masses, is indeed a problem hard to solve and a problem which, in the exigencies of practical politics, is unlikely ever to be solved.

As a matter of fact, few men in practical politics would dare advocate such protection, frankly stating its intended result and how the result was to be attained; for most men in politics would quickly realize that such an advocacy would be likely to array against them the opposition at the polls of nearly all the farmers. Our own (United States) protective tariff has been levied on raw wool, woolen cloth, cotton cloth, sugar, fruit, potatoes, shoes, coal, etc. It has been very far from being a tariff which would raise wages at the greater expense of rent. Rather has it been a general grab in which as many interests as possible have tried to get something at the expense of the general interest. It requires no argument to show that our protection has not been designed to avoid the things that the masses of working people have to consume. Nor has it by any means avoided goods produced under conditions of increasing cost, protection of which is likely to raise land rents, to the greater loss of wage earners. From the log rolling of actual political struggle, there is likely to issue a hodge-podge of tariff rates, causing loss to nearly all. The general average of American wages might be made higher by shutting out the immigrant laborers who enter this country as competitors of those already here; but the average American real wages are distinctly not raised by shutting out and, therefore, making scarce and dear, the goods which wage workers desire to consume.

§ 6

How Protection May Benefit One Section of a Country at the Expense of Other Sections

A protective tariff may benefit absolutely one section of a country, including manufacturers, wage earners, and farmers; but if so, only at the greater expense of some other section or sections. Protection to manufacturers of woolen cloth, in certain sections of New England, may benefit people in those sections, who are unwilling to move elsewhere, by making purchasers of cloth in other parts of the United States pay tribute to them. It may conceivably even work a benefit to farmers and farm land owners in the immediate vicinity of the protected mills, since the protected mill owners and mill workers, though gaining something at the expense of the rest of the nation, would have to share these gains with local dairymen and truck farmers in order to get the latters' services, just as they would have to share these gains with local building contractors, bricklayers, and so forth.[1] The gain, if there is a gain, is not equivalent to the loss of other sections, for the people of the locality benefited have the option of seeking better opportunities in these other sections, even if they do not care to carry on other industries where they are. If other sections have greater resources, then artificially to prevent migration into them is to diminish national prosperity, is to decrease wealth production in the naturally favored sections more than it is increased in the less favored. And, in any case, to turn industry into a line it would not otherwise follow, is, presumably, to diminish national prosperity. The policy, when all sections are considered, brings a net loss.

[1] Cf. Taussig, *Principles of Economics*, New York (Macmillan), 1911, Vol. I, p. 511.

While there is reasonable ground for the opinion that no large section of the United States has really gained by the long continued maintenance of protective duties, or could gain more than it would lose, in the general compromise of protective tariff making, yet certain parts of the country have felt themselves particularly injured. This has been the feeling in most of the Southern states, and is one explanation for the phenomenon of a "solid South." The cotton-raising states have realized that their staple product must be in part exported, and that a protective tariff could not appreciably, if at all, raise its price. And they have known full well that the prices of many things they have had to buy have been very considerably raised in price by the tariff. The wheat-producing areas of the middle West and, doubtless, certain manufacturing centres of the East, have been in a similar situation.

It is probably such facts as these, which have apparently produced in the minds of some of our public men the feeling that a protective tariff is, in spirit, unconstitutional, a feeling which found recent expression in the National Democratic platform of 1912. The Federal Constitution has given to Congress and the President the right to levy import duties and the right to regulate commerce with foreign nations. The passing of a protective tariff law has always been regarded as but an exercise of these powers. There is little reason to suppose that any Federal court would set aside a tariff law as unconstitutional merely because it was protective. A court would not be likely to go behind the professed intent of Congress and the letter of the Constitution, in order to raise questions regarding the ultimate economic effects of the laws passed. Such questions would be

assumed to be questions for the legislature and not the judiciary to decide. Therefore, Congress and the President must themselves decide upon the constitutional justification of a protective tariff. But the contention that to use either the tax-levying power or the power to regulate commerce, in such a way as to compel the people of some states to pay tribute to producers in other states, is contrary to the real spirit of a constitution framed as the basis for a federation of states, is a contention not without a degree of plausibility.

§ 7

Protection as an Encouragement to Monopoly

In its practical results, the tariff is likely to operate in taxing the entire nation, not for the benefit of all the people in any one section, but for the protection of monopoly profits. Though a tariff schedule may not be at first devised for this purpose, — and of course it would not, at least openly, be so devised, — it comes to have this effect if it encourages combination. This the tariff is likely to do. For it protects producers against foreign competition and so suggests to them the hope that, by combining among themselves, they may realize monopoly profits. A protective tariff which has only this effect cannot be said to benefit the masses of the people in any section. It certainly has no effect on real wages other than to lower them, if, as is usually the case, the goods produced are goods largely consumed, directly or indirectly, by working people. For the only way the tariff can possibly create or maintain monopoly profits, is to create or maintain monopoly prices; and that means that it takes money from the masses of the people, in order to give it to monopolists.

§ 8

Summary

We have now to summarize the conclusions we have reached regarding the effect of protection on classes and sections. Because protection tends to diminish national wealth, it has a tendency to restrict the extent of roundabout production, to make the *rate* of interest higher (though not necessarily the total *amount* of interest), and to make wages lower. This is an indirect effect. But there is a more obvious direct action. When both protected and unprotected goods are produced, in the protectionist country, under conditions of approximately constant cost, the effect of protection is to reduce real wages. If the protectionist country and those trading with it have a common monetary standard, then money wages in the former will rise and money prices will rise in the same proportion, except that there will be a special rise of the protected goods, in addition, so that real wages will be lower. Assuming the protected industry to be one of increasing cost, while the unprotected industries are of relatively constant cost, it appears that protection may benefit land owners by raising land rents, but that the gain of land owners must be less than the loss of wage earners.

On the other hand, there is a conceivable case in which wage earners gain at the greater expense of land owners, viz. when the protected goods are produced under conditions of relatively constant cost and unprotected goods under conditions of increasing, perhaps sharply increasing, cost, and when wage earners are chiefly concerned, as consumers, with unprotected goods. Given these conditions, real wages will be higher because of protection,

and the rents of land (in our illustration, the profits of farmers) will be lower. But the owners of land lose more than the wage earners gain. Assuming the usual international monetary relations, money wages will rise; money prices of protected goods will rise more; money prices of the unprotected goods produced under conditions of increasing cost will rise little or not at all.

It appeared, however, that the mere devising of a tariff to have this result would be difficult, since it would be almost impossible to divert much labor from the industry or industries of increasing cost and so to make possible, in that industry or those industries, higher wages, without protecting the production of and raising the prices of, goods largely consumed by wage workers. The practical difficulties in the way of passing such a tariff act appeared to be no less great. The conflict of various interests is not likely to, and presumably never did, result in a tariff act which would raise wages at the expense of land rent. Even supposing such an act to be practically possible, and assuming that most or all of land rent is an unearned income belonging properly to the whole people, we must conclude that direct taxation of such rent would secure the larger general welfare and the less waste, as compared with the indirect and very partial appropriation of it and partial waste of it, involved in the protective tariff policy.

Protection can, it was shown, benefit a considerable territory within the protected group at the greater expense of another section of the same nation. In the United States, the South has usually felt itself to be a sufferer by the policy. Protection may also build up and secure against foreign competition, monopolies, and so injure the general public for the benefit of a comparatively few.

CHAPTER VI

A Consideration of Some Special Arguments for Protection

§ 1

The Argument that Protection is Desirable Because it Keeps Money in the Protected Country

One of the cruder popular arguments for protection is that it keeps the people of the protectionist country from spending their money in foreign countries, and so gets and keeps more money in circulation at home. It is, of course, true, as we have seen,[1] that the effect of a protective tariff is to decrease imports, while still, for a short time, not bringing about a corresponding decrease of exports, and that there is, in consequence, somewhat more money in a protectionist country than otherwise there would be. But it is also true that the net inflow of money or of gold is not perpetual, that it soon reaches a limit. It is further to be emphasized that money or gold is not the thing for the securing of which trade is really carried on. No one, other than a miser, wants money, except that he may pay it out again for other goods.

The argument in favor of getting money into the country and keeping it there, occasionally takes the form of a comparison between a business man and a nation. It is asserted that a business man is reckoned prosperous

[1] Chapter IV (of Part II), § 1.

in proportion as he takes in more money than he pays out, in proportion as he sells more goods than he buys; that a nation's prosperity is similarly to be secured by selling for money more than it buys with money; and that, therefore, a limitation on purchases from abroad is desirable.

The validity of such a comparison is sometimes questioned by free traders. It is said that, since a nation is not the same as a single individual, what conduces to the prosperity of the latter may not further the prosperity of the former. But free traders have, as such, no occasion to question the validity of the comparison, since the comparison does not show what protectionists intend it to show. The fact is that a successful business man does not take in more money than he pays out. On the contrary, he is always anxious to expend his money (or his bank deposit) for goods. If he does not spend it for enjoyments, he will wish to expend it by making investments. He will buy automobiles, yachts, residences, theatre tickets; or he will purchase factories, office buildings, railroad shares, machinery. It is by the one type of purchases that he endeavors to enjoy his prosperity, and by the other kind of purchases that he hopes to add to his prosperity. A wealthy man is not necessarily one who has a large amount of money in his pockets or one who has a large checking account. More usually his assets of that sort are small compared with his property in railroads, mills, stores, farms, etc. With a nation, which is a collection of individuals, the aim should be similar. A nation enjoys its prosperity, in proportion as it secures many services and many goods for immediate consumption. It increases its prosperity in proportion as it secures, from abroad if it can get more

by purchasing abroad, large capital equipment for aid in further production. For a nation as for an individual, money is not the thing most to be desired, but the wealth which money buys. A country which has a large amount of money and high prices, benefits from that fact only if it can use this money to buy goods where prices are lower. There is no gain, but only loss, in preventing purchase abroad in order to get and keep money within a protectionist nation.

§ 2

The Wages Argument for Protection

The argument for protection, which has, perhaps, been most persistently urged in political campaigns within the United States during the last half century or more, is the wages argument. We have already discussed at some length the effect of protection on wages,[1] and need not expand greatly upon the subject, here.

The general tendency of protection is to divert industry out of its most profitable into less profitable channels; and it is hardly likely that, by so doing, protection will make wages higher. We may rather expect that it will make wages lower. In fact, as we have seen,[2] a protective tariff cannot directly[3] raise any wages without raising, in the same degree, the prices of protected goods. And further, as we have also seen,[4] to the extent that protection operates to turn men into less productive lines, those whose wages are nominally raised will not

[1] See Ch. V (of Part II).

[2] Chapter IV (of Part II), § 2.

[3] The improbability of a tariff's raising wages indirectly has been sufficiently discussed in Ch. V (of Part II), § 5.

[4] Chapter IV (of Part II), § 2.

gain (if they do gain) as much as others lose. Even if they secure, in the protected industry, wages as much higher than they could otherwise get *in that line* as their employers get higher prices for the protected goods, they will not be getting wages correspondingly higher than they could have secured in the natural and relatively more productive industries of their country. The presumption is, that not only *average* real wages, but even the real wages of those employed in protected industries, will be lowered by protection. For competition, so far as it is free, tends to equalize conditions; and no one trade of wage earners can therefore hope to gain, for any long period, by means of protection, even at the greater expense of wage earners in other trades. Rather will all probably share, ultimately, in the national loss. Though wages measured in money may be slightly higher under protection because of an inflow of gold, wages measured in the necessaries, comforts, and luxuries of life, are practically certain to be lower.

The emphasis, in the wages argument for protection, is sometimes placed on the alleged danger of allowing American workingmen to be subject to the competition of cheap foreign labor, the competition of the so-called "pauper labor" of Europe. The truth is that the "competition" of cheap foreign labor cannot do otherwise than benefit the country as a whole. Such labor, *e.g.* labor engaged in the production of woolen cloth, can only injure American workingmen employed in that industry, by benefiting Americans in all other lines through lower prices of woolen cloth. And the Americans engaged in manufacturing woolen cloth would share in this benefit when they had turned their efforts into

other lines in which their relative efficiency was greater. If it is really so dangerous to American wage workers' prosperity to have goods from abroad sold in the United States at a low price, and the more dangerous the lower the price, then, obviously, it must be the most dangerous of all if the goods are given to us for nothing.[1] What ruin to our industries, what poverty and suffering must be caused, by our getting quantities of goods from abroad without having to produce any goods to send in return! For if we thus secure goods from other countries for nothing, we are able to devote all our energies to increasing still further our stock of wealth and our flow of income services.

Frequently an inductive wages argument is attempted, based on a comparison between the United States and England. Attention is called to the fact that wages in England are lower than wages in the United States, and it is implied, if not asserted, that the difference is due to the British policy of free trade as contrasted with an historic American policy (now, however, possibly in process of abandonment) of protection. Yet every one who is familiar with and able to distinguish between the legitimate and the illegitimate processes of reasoning, knows that such a comparison has little or no value unless other things are equal, or unless the effects of the other things which are not equal are known, and can be subtracted from the total result.[2] As a matter of fact, other things are not, in this comparison between England and the United States, at all equal. England is much

[1] An effective turn to the argument given by Henry George in his very readable *Protection and Free Trade*, New York (Henry George), 1891, pp. 121–125.

[2] See Mill, *System of Logic*, Book III, Ch. VIII, § 5 on the method of residues.

more crowded than the United States, and its resources, in comparison to population, are less. With thirty-three millions of people struggling to make a living in a country about the size of the state of Illinois (which has a population of something like two millions), England can hardly be expected to be a country of as high wages as the United States. Because of the law of diminishing returns, wages in England must be comparatively low in order that the demand for labor shall equal the supply. It is true that the people of England are not confined to, and are not mainly occupied in, agriculture. England is primarily a manufacturing and commercial nation. But the point is, that England has to engage in industries employing many persons per unit space, in order to support, comfortably, so large a population in so small an area. Hence, England has to engage in *commerce* and *manufacturing*, even if competition with other crowded countries and parts of countries, reduces the profits and wages which can be earned to a comparatively low level, and even though far distant markets must be sought and raw materials imported, at considerable expense, from abroad. In a country like the United States, however, there is always the alternative of going into agriculture, or mining, or manufacturing for which resources are available near at hand, and hence wages tend to remain at a higher level. Wages in the United States have been high, not because of a protective tariff which has tended to lower them, but because of the favorable relation of population to natural resources. Wages in the United States are in danger of being lowered, not by free trade, which would tend to raise them, but by immigration from the crowded and low-wage countries, by immigration which increases the supply

of labor, lowers the margin of cultivation toward foreign levels, and makes necessary low wages to equalize supply of and demand for wage earners' services.[1]

§ 3

The Make-Work Argument for Protection

Closely associated with the wages argument is the argument that protection makes employment. It is said that the tariff, by shutting out various foreign goods, gives encouragement to American capital and labor to engage in producing such goods. If protection does this, it is only because protection makes the production of such goods more profitable. For even without the defence of the tariff, home producers in any industry could have the entire home market and could, therefore, sell all the goods which that market would take — as well as some goods abroad — if they would make low enough prices, if employers and employees together would be willing to carry on the business without aid, and take what it could earn. The tariff simply enables them to do a business no larger, at higher prices, and therefore at the expense of persons in other industries. If employment is increased in one industry, it is only because that industry is made more profitable than it otherwise would be and because men will choose the employment

[1] If immigrant wage earners always went into the lowest grade labor, and if they and their descendants remained in this labor only, their competition might not lower wages in other work. If it increased the demand for other work more than, by pushing former low grade labor into such work, it increased the supply, wages in this other work might rise. Conceivably, most native labor would find employment in this high grade work (Hadley, *Economics*, New York — Putnam —, 1906, pp. 420–421). But in a few generations, the descendants of immigrants are competing for the higher positions as well as the lower, and, indeed, it would be more difficult to realize democratic ideals if they were not. The net result is likely to be a reduction of wages for most kinds of labor.

that pays best. Employment is made less profitable in other industries than it would else be, since those employed in these industries must bear the tariff burden. Will not the protective tariff, therefore, decrease employment in these other industries as much as it increases employment in the favored industry or industries?

Another way to look at this matter of employment is from the viewpoint of the tariff's effect on foreign trade. In a previous chapter[1] it was pointed out that any serious restriction of imports brings, eventually, a corresponding limitation on exports. It follows that to give employment in a new industry started by a protective tariff, is to take away employment in production of goods for export.

Even if the people of foreign countries would give us our imports for nothing, — which they will not, — so that our labor would not need to be employed in producing goods to return to them, still our labor might be sufficiently employed in producing additional goods or in producing goods of a different kind which we could not secure by gift. A high protective tariff would shut out the free goods and compel our labor to be wasted in producing these goods at home; but it would not make employment greater or more steady. Our labor would simply be producing goods which might have been got for nothing, instead of getting such goods free and producing additional goods.

Labor can be employed, and at high wages, when there are fertile lands or good sites to work upon, tools to use, available wealth to pay and support labor during the process of production (if roundabout), and a prospect of a return sufficient to compensate for the outlay. A

[1] Chapter IV (of Part II), § 1.

protective tariff does not increase or improve the lands or the sites; it does not multiply tools or increase wealth, but tends rather towards national poverty; it does not, for industry as a whole, improve the prospects for large returns, but has, rather, the reverse effect.[1] How, then, can a protective tariff increase employment?

§ 4

The Home Market Argument for Protection

In political struggle, it is usually fatal to antagonize any very large class. So in order to carry through a protective policy, it has been necessary, in the United States, to convince not only wage workers, but farmers as well, that the policy would benefit them. While many products of the farms, *e.g.* raw wool, have been protected, yet it has been difficult to show that the great agricultural staples, such as wheat, corn, and cotton, have been appreciably raised in price by the tariff[2] or that the tariff *could* directly raise their prices. The appeal to American farmers has therefore taken the form, in part, of asserting an indirect benefit of protection, through the establishment of a "home market." The "home market argument" points out, to begin with, that a protective tariff increases the number of persons engaged in the protected industries, *e.g.* manufacturing. Those thus

[1] *The Arguments of Schüller* (Schutzzoll und Freihandel, Vienna — Tempsky —, and Leipzig — Freytag —, 1905, pp. 75–84) to the effect that industry in any country is not rigidly limited by the factors of production, but may vary within wide limits in relation to these factors, proves nothing whatever for protection, unless it is also shown that industry is likely to fall short of its maximum, under free trade, and more nearly to approximate its maximum, under protection. For such a contention (aside from possible transitional effects during adjustment to a changed policy), there seems, to the present writer, no reasonable justification either in theory or in direct experience.

[2] See Ch. V (of Part II), § 5.

led to engage in manufacturing then have to buy the products of the farms, and so the farmers secure a home market for these products.

The answer to such an argument has already been indicated in our discussion of the effects of a protective tariff on exports.[1] If we of the United States refuse to buy goods from abroad, and so develop the production of those goods at home, to just that extent, in the long run, will we be deprived of an opportunity to produce goods profitably for export. The farmers can only gain a home market by losing a foreign market. And the extra prices they have to pay for goods, especially protected goods, because of the tariff, will cause them to suffer a net loss.

Sometimes the argument in favor of the development of a home market takes a slightly different form. Instead of its being asserted that the protected manufacturing industries will not exist or will not be so widely extended without a tariff, emphasis is placed on the contention that they will not be so prosperous. Those engaged in them will earn less. If the manufacturing industries are protected, it is urged, the farmers may, indeed, have to pay more for manufactured goods; but those engaged in manufacturing will then have more money with which to purchase the farmers' products, and so the farmers will get their money back again. The truth is that they will not and do not get it back again unless they give something else of value in return. If a farmer pays more for clothes, because of a protective tariff, than he otherwise would, we may admit that the clothes makers will have more money (other things equal) with which to buy, if they choose to, the farmer's products; but the

[1] Chapter IV (of Part II), § 1.

farmer does not get back this extra money for nothing; he must give extra products for it. To assume that the farmer does not have to give extra products to get back the additional money paid for the higher priced clothes, is to assume that the protected industry is not encouraged by the higher prices the farmer pays for its goods; for this is to assume that the higher prices so paid by the farmer for the protected goods, are balanced by higher prices which those in the protected industry must pay for the farmer's products. This would mean no change in the relative positions of farmer and manufacturers because of protection, save a merely nominal change. The idea which protectionists who use this "get it back again" argument endeavor to convey is that, somehow, producers of protected goods get larger real incomes because of the tariff; while, at the same time, those whose purchases of goods at higher prices make these larger incomes possible, lose nothing by the system.

The absurdity of such an argument is perhaps best shown by an illustration. Suppose that, in a small town, there are a number of robberies, as a result of which each of the merchants of the town finds himself minus several hundreds of dollars. Finally, the thief is apprehended. But upon being accused of his crimes, he asserts in his own défence that he has really done no harm. Though he admits having robbed the various merchants of money, yet he points out that he has lived in the town and has used all of this money to buy their goods and that thus they have "got it back again." The obvious fact is, of course, that the merchants have only got their money back by giving up for it other goods of supposedly equal value.[1]

[1] Cf. Sumner, *Protectionism*, New York (Holt), 1885, p. 125.

Protection may, as we have seen,[1] benefit one section of a country at the expense of other sections; and the gains to the section benefited will perhaps be distributed among all classes. If the West and the South are taxed to develop manufacturing in Rhode Island, the Rhode Island truck farmers and dairymen may share in the local gains by virtue of having a home market provided for them at the expense of others. But to say this is very different from saying that they would gain if the local market were provided entirely at their own expense.

§ 5

The Argument for Protection to Agriculture in the Older Countries against a Future when Cheap Foods and Raw Material may not be Obtainable from the Newer Countries

An argument not generally familiar to Americans, has been used in favor of protection to the agriculture of the more crowded European countries, in particular the agriculture of Germany.[2] There is, it is claimed, too great a reliance of the older and more densely settled countries upon the new countries for food supplies and raw materials. Eventually the new countries will be more thickly settled, will, like the old, devote themselves in larger part to manufacturing, and will have smaller surpluses of food, etc., for export. Therefore, the old and thickly settled countries, which will probably have grown still more in population during the period of importing food and raw materials from abroad, will get

[1] Chapter V (of Part II), § 6.

[2] See Adolph Wagner, *Agrar- und Industriestaat*, Jena (Gustav Fischer), 1901, p. 73. A good statement of the argument is given in Taussig, *Principles of Economics*, New York (Macmillan), 1911, Vol. I, pp. 534, 535.

their food supplies and raw material with increasing difficulty. The suggested remedy is that the thickly settled countries should levy, each, a protective tariff on such imports, force its people to get along, in the main, with what can be produced in their own country, resist thus the tendency to specialize in manufacture, and so prevent the growth of a population which is dependent upon foreign surpluses for its food and necessary materials.

If the fear is that the new countries, when they come to develop manufactures, will almost without exception shut out, by protective tariffs, goods manufactured in the older countries, and so eventually compel the latter to be self-sufficient, there is reason in the suggestion that these older countries remain self-sufficient from the beginning. By so doing, they will avoid the intense suffering which must result from a return to a sparseness of population capable of securing sufficient food, etc., at home.

But if the world can be expected to attain a liberal attitude towards trade, if a tendency towards low tariffs can be hoped for (and this is perhaps more likely to be the case as the stage of infant industry is left behind), then the argument for protection of agriculture has very little force. For no matter how extensively the now sparsely settled countries eventually go into manufacturing, they will not go into it, if not artificially encouraged, unless it yields, on the average, as satisfactory returns as agriculture.[1] That manufacturing populations in the older countries will have to meet the competition of manufacturing groups in the newer, is true. But assuming free trade (and if trade is not free, then in

[1] On the margin of production.

proportion as restrictions are slight), this merely means that the manufacturing populations of the older countries, cannot charge higher prices and therefore cannot get higher wages and profits per unit product, than the manufacturing groups in the newer countries. It does not mean that the condition of the old countries must become appreciably worse than that of the new. So long as many persons in the new countries care to engage in manufacturing (and that they will do so is all that is feared), it must be that manufacturing is about as profitable as agriculture. If it were much less so, assuming free trade or any near approximation to free trade, the newer countries would withdraw from manufacturing and the older countries could carry it on without competition. If manufacturing in the new countries is as profitable as agriculture, and if trade is free, manufacturing in the older countries (assuming equal efficiency) must also be, except for the greater costs of transportation, as profitable as agriculture in the new, because as profitable, save for transportation costs, as manufactures in the new.

§ 6

The Infant Industry Argument for Protection

The argument which is usually regarded by economists as stating the best case for the protective tariff, is the so-called infant industry argument. The more careful thinkers who advance this argument admit that protection involves a cost, a temporary loss of productive power. They admit that it involves turning industry from a more productive into a less productive line. But they urge that the newly established line may be only temporarily less productive and may be eventually more pro-

ductive and advantageous for the country than the older lines of industry. It is urged that a country may have natural advantages adequate to the successful carrying on of a given industry, but that, at the beginning, the competition from more experienced management and better trained workmen abroad is likely to prevent the growth and development of the industry, and, therefore, to prevent the attainment of the greatest possible efficiency in it. Give such an industry temporary protection, it is said, so that it can get a start, and it may eventually undersell its foreign rivals. Then the protectionist country will perhaps realize a gain which will more than compensate for the temporary loss.[1]

It should be said, to begin with, that this argument for protection applies at all, only in regard to those industries in which success depends largely on acquired skill and not merely on natural advantages. It is hardly an argument, therefore, in favor of protection to much else than new manufactures, and it is not an argument in favor of perpetual protection for these. It is highly probable, however, that in some cases, if the industries to be protected are chosen wisely, and are not protected too long, the desired results can be attained. In the United States, a considerable part of the silk industry, started by protection, seems eventually to have reached a position where it can produce as cheaply as foreign concerns and where, therefore, it does not need protection.[2]

But while such suggestions have a great deal of force, the opposing considerations, especially on the practical

[1] This view was presented in Alexander Hamilton's Report on Manufactures, and later, in Germany, was urged by Friedrich List.

[2] Mason, "The American Silk Industry and the Tariff," *American Economic Association Quarterly*, December, 1910, p. 177.

side, are also not without weight. In the first place, though new industries may indeed be developed in this way, yet they can be thus developed only by drawing the labor force required, from other lines. It follows that the development of skill and the progress of invention in those other lines may be retarded as much as in the new lines they are forwarded. New ideas are less likely to be evolved among a few than among many. And in proportion as there are more persons in the new lines, there are fewer persons in the old lines. Indeed, it is not inconceivable that some of the older industries, industries still capable of further progress, may be made so comparatively unprofitable — especially if their necessary machinery or materials are taxed by the tariff — as to be entirely given up. We have already seen that protection tends to decrease the export trade [1] and that it may, by leading to rise of prices,[2] ruin other industries.[3] Before, then, protection is accorded to an infant or embryonic or projected industry, inquiry should be made as to the following points: first, as to whether that industry can be expected to develop without such aid; second, as to whether, if it will not, such aid will suffice to develop it to a point where it can and will sell its products more cheaply than they can probably be secured elsewhere, and enough more cheaply to compensate, with interest, for the loss incident to starting it; third, as to whether the attempt to encourage it might not involve a risk of discouraging other industries, which would balance any hoped-for gain.

In view of all these considerations, it becomes impor-

[1] Chapter IV (of Part II), § 1.

[2] Or a change in value relations of money systems, which acts similarly.

[3] Chapter IV (of Part II), § 6.

tant to judge the fitness of the governing body to apply such a policy, decide upon its effects, and select the industries to be encouraged.[1] It is a special function of the enterpriser-capitalist to select for his own investment (and the investments of those whom he influences) industries capable of succeeding. If he does not, the principal loss falls upon him and upon others in like situation. The community suffers only indirectly and incidentally. The enterpriser-capitalist is a product of selection. His power to direct industry into profitable channels is due to his possession of capital, or the confidence of other business men and investors, or both. His possession of capital and of this confidence, though sometimes due in part to inheritance from able progenitors or relatives, is frequently due, in no small degree, to past successes. He has the power to direct industry into those lines which he believes will pay best and which, therefore, are presumably the lines most needed by the community, because he has successfully so directed industry in the past. Men whose knowledge of law or politics has made them members of a law-making body are not, as a rule, the product of the same kind of selection. If they were, the fact that their own fortunes are not at stake does not conduce to caution. In case a new industry established by protection never becomes profitable, the loss which its establishment causes falls upon the general public and not upon legislators as such. Similarly, in case an industry is prematurely established or in case its establishment retards other industries, the loss is that of the public.

Given the present form of our own and other republican

[1] Cf. Bastable, *The Theory of International Trade*, fourth edition, London (Macmillan), 1903, p. 140.

governments, there is a special pressure tending towards unwise selection of lines to be favored. This is the pressure of localities or, at least, of large interests in various localities. For in republican government, legislators usually represent districts, states, or other territorial units. When it is proposed to encourage various industries, when the idea of protection is politically dominant, many and influential interests in each state and district are likely to desire that the industries of that state and district shall get such help at the general expense. The tariff eventually decided upon, the tariff to which legislators from different sections can agree, is not likely to be one which even attempts, scientifically, to apply the theory of infant industry protection. Instead, it is likely to be a hodge-podge of special favors, distributed according to the relative strength of conflicting interests, and bringing general and long-continued injury to the public.

The longer such a system continues and the more extensive its application, the greater are the difficulties in the way of its reform. More and more industries are built up by tariff barriers, and their owners and workmen taught to rely upon these barriers for protection against foreign rivalry. Managerial effort, which might otherwise be devoted to development of the highest efficiency, is instead devoted to the exertion of political pressure. Every effort is made by numerous interested persons to retain and increase the favors secured. Those engaged in the industries assisted are seldom ready to consent to reduction of the tariff after a period of favoritism, however long, but endeavor, usually, to keep the protection indefinitely. Proposals for reduction are met by predictions of dire calamity, and strong opposition to reduction is thus aroused.

To the suggestion that protected industries might decline and die without protection, the answer has been made that "no industry will ever be given up except in order to take up a better one, and if, under free trade, any of our industries should perish, it would only be because the removal of restrictions enabled some other industry to offer so much better rewards that labor and capital would seek the latter."[1] There is doubtless reason in the contention that, since many persons have invested capital in the protected industries and since many others have acquired skill not equally useful in other lines, relying upon a continuance of the past policy of our government, therefore the entire protective system should not be swept away with one blow. Time should be given (as, under the tariff reduction policy of the present administration at Washington, it is being given) for adjustment to new conditions. Nevertheless, the public cannot be held to have pledged itself or to be under any obligation to maintain indefinitely the protective system. Producers must be held to have taken the risk of change, knowing eventual removal of tariff duties to be the public's privilege. Because the people have been willing to pay higher prices for goods during a limited period, it does not follow that they are duty bound to suffer an equivalent annual loss through all future time.

§ 7

The Argument that a Protective Policy should be Followed in Order to Diversify Industry

It is also sometimes argued that protection is of use to *diversify* industrial activity within a country. We

[1] Sumner, *Protectionism*, p. 130.

have already seen that, while the protective policy encourages protected industries, it may cause the decline of others. Yet if applied carefully and consistently with the object of diversification in view, it is probable that a high tariff would increase the number of industries carried on.

It does not follow that prosperity would be increased. There is no special advantage in having a larger number of occupations carried on when the average income is reduced by having them. As a matter of fact, a large country like the United States, with a wide range of natural resources and a versatile population, would be certain to have diversified industry within its borders, under either protection or free trade. With its mines of coal, iron, copper, etc., the United States could hardly fail to be not alone an agricultural country, but a manufacturing country as well.

§ 8

The Argument that Protection should be Applied as a Means of Getting and Maintaining a Certain Degree of National Self-sufficiency

Not all of the arguments for a protective tariff are strictly economic in character. There is, for instance, the argument that protection should be used to insure national self-sufficiency. This argument, in so far as it carries great weight, is of a military significance. It is urged that a country at war with another or others, is likely to have its foreign trade seriously interfered with.[1] If the country in question has relied on foreign

[1] It may, of course, be interfered with to some extent if another country or other countries, with which it habitually trades, are at war. But only a part of its foreign commerce is likely, in that case, to be affected.

trade for the necessaries of life, it will be subject to a considerable strain during the war period, and perhaps will be less able to carry the contest to a successful conclusion. If it has relied upon foreign trade for firearms and ammunition, it may be in no better position. It is asserted, therefore, that a country should adopt the policy of producing all necessaries, including all things required for war purposes, within its own borders, even though to do this brings economic loss.

It must be admitted that this argument, like the argument for protection to infant industries, is not without claims to a respectful hearing. There are, however, some considerations of importance on the other side. In the first place, close trade relations, such as are more likely to follow from a free trade or from a low tariff policy than from protection, do much to promote international good feeling and, therefore, to prevent the occurrence of war. And in the second place, even if war does occur, it may well be that the larger wealth and population made possible by a liberal trade and tariff policy will give greater military strength, through the larger fighting force which can thus be supported, than would any degree of national self-sufficiency.[1]

In this connection we may cite the case of Great Britain. If national self-sufficiency is imperative, there would seem to be nothing which it would be more important to produce in the home country than food. Had Great Britain persisted in a policy of excluding foreign grain and compelled her people to live upon what they could themselves produce, she would have been aiming at this ideal of self-sufficiency. Had Great Britain carried out such a policy, however, her population

[1] Sumner, *Protectionism*, p. 143.

could not have become so great by many millions as it has, nor could her wealth have become so great. She has chosen rather to specialize in production, to import foodstuffs, to attain a numerous population and large wealth. She is not, it is true, self-sufficient in time of war. She must rely for her food upon lands across the seas. But the wealth which a free trade policy has brought her makes possible the maintenance of the most powerful navy in the world, a navy by means of which her commerce is protected. Is England not a stronger nation, a richer nation, and a not less independent and happy nation, than she could have been had the contrary policy been followed?

§ 9

Free Trade within the United States

With the exception of political or military arguments, practically every consideration advanced in favor of tariff duties on goods produced in foreign countries, could be urged with no less (and no greater) plausibility in favor of tariff duties levied by one State or section on goods produced in another State or section. Is it suggested that we do not wish to send money out of the country and that to do so makes us poorer? An exactly parallel argument would assert that we should adopt measures to keep money from being sent out of the State or the county. Do stanch protectionists tell us that to let goods come in from abroad at low prices, must lower American wages? If so, then for Ohio or Illinois to let low-priced goods be imported from New York or from Pennsylvania, must tend to make wages in Ohio and Illinois lower than they otherwise would be. If to shut out English goods from the United States makes

additional employment for American wage earners, then to shut out Connecticut goods from Rhode Island must make additional employment for Rhode Island wage earners. It is hardly necessary to pursue the comparison further. Carried to its logical conclusion, the system of protection would prohibit all trade and, therefore, all the gain in wealth which flows from trade.

Fortunately, the Federal Constitution makes tariff barriers between the different states of the United States impossible. If it did not, we should doubtless find some of our states levying protective duties against their neighbor states, as Massachusetts, New York, and Pennsylvania did under the old Confederation of 1781.[1] As it is, trade between the states is, for the most part, regarded with equanimity. The coal of Pennsylvania is exchanged for the shoes, woolen and cotton goods, clocks, etc., of Massachusetts, Connecticut, and other New England States. The wheat, corn, and meat of the Middle West, and the cotton, rice, and sugar of the South, are sold throughout the country, and the special products of other sections are given in payment. When improvements in transportation facilities make low transportation rates possible, we regard the consequent reductions as cause for rejoicing, because of the stimulus thus given to trade. There is no reasonable doubt that free trade within the borders of the United States adds greatly to our national prosperity and adds, also, to the prosperity of each separate state. To widen this free trade area, so far as lies within our power, would still further increase our economic welfare.

[1] Hart, *Essentials in American History*, New York (American Book Co.), 1905, p. 199.

§ 10

Ethical Considerations Bearing on the Policy of Protection

Before concluding this discussion of the high tariff system, let us consider briefly the moral issues involved. The maintenance of this system means that wealth is to be gained, in the favored industries, not by serving the public well, not by giving to the public better goods than could otherwise be secured or goods at lower prices than must otherwise be paid, but by depriving the public, through influence on legislation, of such benefits. The maintenance of protection means that political influence calculated to injure the community will often bring larger returns to those who wield it than would business carried on in rivalry with others for the benefit of the community. As a consequence, energies which might be devoted wholly to legitimate business, that is, to seeking profit through efficient service, spend themselves instead in selfish political activity, in the attempt to make impossible any rivalry in service from foreign producers, in the attempt to force higher prices from consumers, and so to realize, at the expense of consumers, higher profits than are earned. If the ideal of industrial morality is that profit shall be in proportion to service, if to seek profit by disservice is immoral, then the selfish attempt of private interests to realize wealth by arbitrarily shutting out foreign competitors through tariff restrictions, like the attempt to shut out domestic competitors through seeking railroad discriminations, violates this ideal and is immoral.

§ 11

Summary

In this chapter the attempt has been made properly to estimate the value of most of the standard arguments for protection. The argument that protection increases national prosperity by getting and keeping more money in circulation in the protectionist country was shown to be fallacious, since money is not the ultimate or principal end of trade. The popular "wages argument" for protection, so much used in political campaigns, was shown to have little better basis. Money wages tend to be somewhat higher because of the tariff,[1] but real wages are almost necessarily lower. The much feared "competition of cheap foreign labor" is beneficial to our wage earners when it means cheap goods from abroad, and is injurious to our wage earners only when it means immigration of this cheap labor. Those who attempt to show, inductively, *e.g.* by comparison of English and American wages, that protection makes wages higher, fail to take other things, such as relative density of population, into account. The argument that protection increases the opportunities for employment was likewise shown to be untenable. It increases employment in any industry only by making that industry more profitable. But in so doing it makes other industries less profitable. Natural resources and accumulated capital, which make employment at remunerative wages possible, are not increased by protective tariffs.

The third argument considered was the so-called "home market" argument. This is one of the principal

[1] Except, of course, in the case of unrelated currencies. See Ch. V (of Part II), § 3.

arguments by which the farmers' votes are sought for the protective policy. Examination showed that the gaining of a home market by protection involves the losing of a foreign market in whole or in part, and that the higher prices which protection makes farmers pay for goods are not compensated for by the fact, supposing it to be a fact, that those to whom the money is paid have more money with which to buy farm produce.

An argument having, if convincing, more significance at present for Europeans than for Americans, is that in favor of protection to agriculture, as security against a time when the newer countries may be less inclined to buy manufactured goods of and sell food-stuffs, etc., to the older ones. We saw, however, that if future trade is unimpeded or is impeded only by low tariffs, the older countries can always have a market for their manufactures without having to accept returns less by much more than necessary transportation costs, than those of manufacturing industries, and, therefore, agriculture, in the more largely agricultural countries. Unless great restrictions on future trade are feared, this argument for protection to agriculture has little force.

Protection to infant industries has been urged, even by some careful thinkers, as a desirable temporary policy. The principal objections are practical. It is difficult to be certain that the development of other industries is not being hindered as much as that of the favored industry is being helped. It is difficult to be certain that the protected industry will eventually reach a point of development such that the cheapness of its products will repay the public for the admitted temporary loss. It is doubtful if a legislative body is usually competent to select industries for protection, on this principle, and it

is probable that, in practice, political pressure from interested parties in various localities will play much too great a part. There is danger that the temporary protection will be continued much longer than is necessary or desirable, since its beneficiaries seldom want to give it up.

Protection is also urged as a means of diversifying industry, and it probably has somewhat this effect. Yet diversification can be purchased at too great a cost. And a large country, with varied resources, is pretty sure of a considerable diversity of industry, even without protection.

The argument for protection to insure national self-sufficiency is, in the main, a military argument. National self-sufficiency is undoubtedly an advantage in time of war. So is large population and great wealth. Protection tends to increase the degree of self-sufficiency and to limit wealth and (consequently) population. It cannot be definitely asserted, therefore, that protection has often an adequate military justification. The greater wealth and population resulting from a free trade policy may mean the possibility of a larger army and navy and a greater safety from attack.

Most of the arguments for protective tariffs on foreign produced goods (though not, of course, the military argument) might be used with equal plausibility in favor of protection by one part of a country against goods produced in another part. It is generally taken for granted, however, at least in the United States, that free intranational trade brings benefit to each separate state or other section of the country. If so, free trade with foreign countries would, in the same way, bring gain to the nation as a whole.

The industrial and commercial ideal is that wealth shall be gained by service to the community and not by injuring the community. Tested by this ideal, the effort of interested parties to get protection for their industries is morally wrong. For they are endeavoring to gain business and wealth by prohibiting a foreign competition beneficial to the public, instead of by serving the public better than do their foreign rivals.

CHAPTER VII

The Nature and Effects of Bounties

§ 1

Bounties as Compared and Contrasted with Protection

Somewhat similar in principle to an import protective tariff is a bounty. A bounty is a payment made at intervals by government to the persons engaged in some industry which it is desired to encourage, in proportion to the quantity of goods turned out or sold or in proportion to the quantity exported. The purpose is, or purports to be, the encouragement and development of the industry receiving the periodic payment. A bounty is like protection in that it tends to divert industrial activity into a different line or lines than such activity would otherwise follow. Thus, to use our previous illustration, Canada could, by means of a bounty as well as by protection, encourage Canadian production of linen. The beet sugar industry in continental Europe has been, largely, so encouraged. Likewise, by means of bounties or so-called shipping subsidies, a number of countries have endeavored to build up their shipping interests.[1]

On the other hand, the bounty differs in several respects, in its application, from protection. To begin with, a protective tariff encourages an industry by guaranteeing it the home market, *i.e.* by shutting out goods from abroad. But a bounty does not attempt to inter-

[1] See discussion of shipping subsidies in Ch. VIII (of Part II), § 2.

fere with foreign competition. It endeavors, rather, to enable the home producer more easily to meet foreign competition.[1] The one method, protection, directly *shuts out* rivals. The other method provides home producers with the means to *drive out* rivals.

It follows, as a second and related distinction, that, while a protective tariff enables the protected producers to charge more for their goods, a bounty puts the favored producers in a position to sell their goods for less than they could otherwise afford to take.[2] It is thus that these producers are enabled to capture the business. A bounty may, because of this difference from protection, divert industry out of its natural channels to a greater degree than a protective duty. For the latter can do no more than guarantee the home market to producers who, since they need protection at home, are unlikely to get any considerable business elsewhere; and in fact, protection, by causing inflow of money and higher money costs, is likely to have the effect of making invasion of foreign markets more difficult than before. But the former, a bounty, may make it possible for an industry, through competition in lower prices, to capture the markets of the world, though very probably at great expense to the taxpayers of the bounty-paying country.

Third, the burden of protection falls upon the buyers of protected goods in proportion to their purchases of these goods; while the burden of a bounty falls upon taxpayers in proportion to their respective contributions to the tax fund. Protection compels consumers to pay higher prices. A bounty compels citizens to pay higher taxes.

[1] Cf. R. Meeker, *History of Shipping Subsidies* (in Publications of the American Economic Association, August, 1905), p. 172.

[2] Cf. *ibid.*, p. 173.

§ 2

The Various Possible Effects of Bounties on the Level of Prices

The effect of a bounty on the general level of money prices in the bounty-paying country is similar to that of protection. We may, for the purposes of our discussion, distinguish three cases. In the first case, the bounty acts like a protective tariff in that it decreases imports. Thus, Canada might have a bounty of 43 cents a yard or slightly more, on linen cloth, which would enable the Canadian cloth producers to sell at home for $1 or slightly less a yard, instead of $1.43. As a consequence, we may suppose, the Canadian cloth producers would be able to get complete control of the home market. Then, as in the case of protection, no money would flow to Ireland or elsewhere, for linen. But foreign consumers would still buy Canadian wheat, and there would be a tendency for prices in general, in Canada, including the price of linen, to rise.[1] Eventually Canadian prices would be enough higher than before, as compared with foreign prices, to bring back equilibrium in trade. If Canada's currency system were unrelated to the systems of other countries, if, for example, it were based on inconvertible paper, the rise of money prices would not take place, but equilibrium of trade would eventually result through a change in the relative values of Canadian and other currencies.[2]

In the above assumed case, we have supposed a bounty not quite high enough to make it easy or perhaps possible,

[1] This might lead, as in the case of protection, to a demand for a greater bounty, or to a demand for bounties to industries previously not encouraged. See Ch. IV (of Part II), § 6.

[2] See Part I, Ch. VI, §§ 6, 7, 8, 9, and Part II, Ch. IV, § 3.

for Canadian linen producers to meet transportation costs and invade foreign markets. Let us now suppose a bounty of 60 cents a yard. With a production cost of $1.43, this bounty would reduce the net cost to 83 cents a yard. Even after paying transportation costs, Canadians could then perhaps sell linen abroad for 85 or 90 cents a yard, thus greatly increasing their business and driving out foreign competitors. In this case, not only would Canadian importation of linen be decreased, but Canadian exportation of linen would be greatly increased. As a consequence, there would be a net inflow of money into Canada and a relative rise of Canadian prices. This rise would continue until equilibrium became established either by larger purchases of Canadians abroad, or by smaller purchases of foreigners in Canada, or by both. Thus, Canadians might even, if prices should rise sufficiently, buy goods abroad which they had previously produced at home. If so, other Canadian producers would clamor for bounties or for protection. Nevertheless, an equilibrium of trade must eventually be established.[1]

The third case would be realized if, at the time of establishing a bounty on linen manufacture, Canada was already largely supplying the world with linen and could not hope greatly to extend her foreign market. In this case, the effect of the bounty (assuming free competition among present and potential Canadian linen producers) would be to lower the price of linen without correspondingly increasing its sale. Less money would therefore flow into Canada, while as much as before would flow out. Other things equal, there would be a net outflow of money, and money prices would fall. It hardly needs

[1] Cf. Ch. IV (of Part II), § 6.

to be stated that, if Canada's money system is assumed to be different from those of other countries, there would be a change in the value of Canadian money in terms of other money, rather than a fall in Canadian prices.[1]

§ 3

The Various Possible Effects of Bounties on the General Welfare in the Bounty-paying Country and in the Countries with which it Trades

Consideration of the effects of a bounty on the general welfare of the bounty-paying country and of the countries with which it trades, may profitably follow the line of the above three cases. In the first case, where it decreases imports by enabling the home producers to gain the home market but does not enable them to gain a foreign market, the bounty acts substantially like a protective tariff. It tends to prevent imports but not to stimulate exports. It conduces to national self-sufficiency. It prevents what would else be a profitable trade. Like protection, it turns labor and capital away from the channels they would naturally follow, away from what are presumably the most profitable channels, into channels favored by law. The effects on total production are obviously the same, whether diversion is caused by protection or by bounty.

Not only is the bounty-paying country injured, but also the countries with which it trades are, presumably, to some extent injured. These other countries lose a profitable export trade, and they do not secure goods more cheaply from the bounty-paying country since the bounty is not high enough, in the first case discussed,

[1] See, particularly, Part I, Ch. VI, §§ 6, 7, 8.

to encourage sales abroad by the recipients of this bounty.

The second case to be considered is that in which the bounty encourages export by the bounty-paying country, of the goods on which the bounty is paid. If desired, the bounty may be paid only on exported goods. In this second case, as in the first, the prosperity of the bounty-paying country is made less than it otherwise might be. Industry is turned from more profitable into less profitable channels. Trade with other countries is not prevented to the extent that it is in the first case or in the case of protection, and may be actually increased. But the trade stimulated is not relatively a profitable trade. The export of linen by Canada, in our illustration, takes the place of other exportation more profitable to Canada or of internal trade which would be more profitable. It is as uneconomical to encourage a trade which would not otherwise take place, as to discourage, by protection (or by high export taxes), trade which otherwise would take place.

The effect of the bounty on other countries than the one which pays it, is, in this second case, beneficial. We know that other countries would gain by the trade if the new industry were one which became established in the bounty-paying country because of suddenly discovered natural resources or because of acquisition of skill. And as far as other countries are concerned, the bounty has the same effect as either of these other causes of development of the favored industry. It is no longer desirable for them to produce the goods in question for themselves. These goods can be got more cheaply at the expense of the taxpayers of the bounty-paying country. The persons in other countries, who

formerly produced these goods, must, it is true, change their occupation.[1] But there are presumably other occupations equally or almost equally, profitable, and the consumers of these other countries gain, therefore, more than the producers lose.[2]

In the third case, the bounty does not appreciably increase the sales abroad by the favored producers of the bounty-paying country, but simply results in their selling about the same quantity of their goods at lower prices. In this case, the loss to the bounty-paying country is more obvious than in the other cases, while it is even clearer than in the second case, that foreign countries gain. Since the bounty simply lowers prices without extending trade, it benefits foreign consumers without driving any foreign producers from the line of production favored into other lines.[3]

[1] The trade between second and third countries and their relative gains from trade, may be affected. A bounty on the production of linen in Canada may, by encouraging export of Canadian linen, drive Irish manufacturers out of, say, the German market. Irish linen producers are injured. German linen consumers are benefited. But Ireland can get its own linen, thereafter, more cheaply by importing it from Canada, and gains in so far as linen is desired to use. Ireland is injured in so far as Canada enters trade as her competitor in selling linen to Germany, but this loss is balanced by Germany's gain. Ireland gains in so far as she secures linen from abroad more cheaply than she could make it herself. It becomes more economical for Ireland to devote herself to some other line or lines. If the new products which she now endeavors to export are less desired abroad than the old, the rate of trade will tend to become somewhat less favorable to Ireland and more favorable to these other countries, than before. Ch. II (of Part II), § 2. Ireland will also, probably, become somewhat more self-sufficient. But the conclusion remains that when all other countries except the bounty-paying country are considered, the general result is favorable. See, however, Ch. IV (of Part II), § 6.

[2] See Ch. IV (of Part II), § 2.

[3] There is a tendency, also, for the rate of trade to become more favorable to other countries and less so to the bounty-paying country. Money flows out of the latter and into the former. Prices fall, relatively, in the latter and rise, relatively, in the former, though this change would probably be slight in the case of a bounty on only one kind of goods. Hence, foreign countries may be

England was for a long time a very great gainer by virtue of the export bounties paid on beet sugar until 1903,[1] by the beet sugar producing countries of continental Europe.

Had only one such country adopted a bounty-paying policy, the effect would have been much larger exports of sugar for that country and a slightly lower price of sugar for buying countries. This is the kind of situation discussed in our second case. But when all the European beet sugar countries were simultaneously paying bounties on exported sugar, the net result was that no one of them could extend its export trade to anything like so great a degree, while all of them had to accept very low prices for their product. There was then a closer approximation to the conditions described in our third case, though probably, since beet sugar largely displaced cane sugar from the West Indies and elsewhere, the conditions of case 3 were not realized.

However this may have been, it is obvious that the sugar consumers of other parts of the world were great gainers by virtue of these bounties, and gainers at the expense of the bounty-paying countries. Particularly did the bounties redound to the profit of free-trade England, whose people were not prevented by tariff restrictions from securing the sugar cheaply.[2] So it resulted that the English were able to consume several times as much sugar per capita as, for instance, the

able to buy other goods than the favored kind more cheaply than before from the bounty-paying country, while having higher money incomes with which to buy.

[1] Fisk, *International Commercial Policies*, New York (Macmillan), 1907, p. 137.

[2] Although eventually, because of colonial sugar interests in the West Indies, England supported the general agreement to discontinue the bounty competition. It does not follow, of course, that England acted wisely in so doing.

bounty-paying Germans.[1] Furthermore, all those British industries which depended upon the use of sugar prospered in a large degree.[2] In the confectionery and preserving trades, thousands of persons were employed and many thousands of tons of sugar were annually used.

If, in some distant future, the philosophy of protectionism comes ever upon the discredit which it deserves, the descendants of those whose taxes supported the favored business of sugar production may at least console themselves with the thought that many foreigners were benefited. Though the bounties turned industry from its natural channels, though they caused the consumption of beet sugar, when cane sugar would have involved a less labor cost, though they diminished the economic well-being of the world as a whole, though part of the taxpayers' burdens was therefore in every sense a net loss; yet another part of their burdens was compensated for by extra gains, in the form of cheaper sugar, to the people of a neighbor nation.

§ 4

The Various Possible Effects of Bounties on Wages and Rent

A bounty, or system of bounties, would usually affect money wages as compared with real wages, just as does a protective tariff. The immediate effect of a bounty would be to tax the people more than it lowered the price of the goods favored. For illustration, suppose that Canada can buy linen, in Ireland, for $1 a yard, while the cost of linen produced in Canada is $1.43. By granting a bounty of 43 cents or of 53 cents, the

[1] Sumner, *Protectionism*, New York (Holt), 1885, p. 81.
[2] *Ibid.*, p. 86.

Canadian government enables home manufacturers to sell linen at $1 or at 90 cents a yard. The people of Canada lose, as taxpayers, 43 cents to gain nothing, or 53 cents to gain 10 cents. Unless the taxes are so levied that they do not fall upon and cannot be shifted to wage earners,[1] real wages must be lower.[2] This remains true after the inflow of money which raises prices (or the outflow — case 3 — which lowers prices). For money prices and money wages will tend to be affected in equal proportion by the change in money supply. A bounty on exports only, may lower the price of the favored goods, to foreign consumers, at the expense of taxpaying citizens of the bounty-giving country, while it will not lower the price to domestic consumers.

§ 5

Why Bounties may be Less Objectionable than Protection if Encouragement of Infant Industries is in Any Case to be Attempted

The bounty method has sometimes been recommended as superior to the method of protection, for the establishing and developing of an infant industry. Since the bounty system is more clearly seen to involve taxation, public support is less likely to be given to schemes for its widespread application. It is perhaps not quite so unlikely that care will be used in deciding upon the industry or industries to be favored. For the same reason, the likelihood that the bounty will remain a permanent burden upon the general public may be somewhat less.

[1] Even if the necessary taxes fall in no sense upon wage earners, and so really raise wages, they raise wages less by turning labor into unprofitable lines than if the money were directly paid to wage earners, as a forced charity.

[2] There is, however, as with protection, a conceivable exceptional case. Cf. Ch. V (of Part II), § 5.

§ 6

Summary

A bounty, like protection, is a special favor granted by government to some industry or industries. It differs from protection in that it does not tax foreign competition, but enables the domestic producer to meet it, in that it lowers instead of raises the price of the favored goods, and in that the burden falls upon taxpayers as such rather than upon consumers. A bounty may simply insure domestic producers their home market, or it may be high enough to enable them to meet transportation costs and increase their foreign business, or it may enable them to sell the same amount of goods abroad as before, at lower prices. In the first two cases, the level of prices in the bounty-paying country will rise as compared with the levels in the countries with which it trades. In the third case, the level of prices in the bounty-paying country will fall. In all three cases, the effect on the national prosperity of the bounty-paying country will almost certainly be unfavorable. In the second and third cases, other countries will be likely to profit to some extent at the expense of the taxpayers in the bounty-paying country. Since a bounty system tends to burden the taxpayers, with no corresponding gain to the general public, it tends to lower real wages, for it can hardly be supposed that wage earners will be unaffected by the level of taxation. If an infant industry is in any case to be established, however, the bounty method may be better than the method of protection.

CHAPTER VIII

Uneconomical Government Interference with, and Encouragement of, Transportation

§ 1

Navigation Laws

One of the important methods which governments have sometimes followed in order to develop a national mercantile marine, has been the method of navigation acts, excluding foreign vessels from certain designated commerce. For example, England's navigation acts of 1646 to 1660 (act of 1651 perhaps of chief importance), prohibited the importation of any goods into England or Ireland or any of the British Colonies, except in British ships, owned and navigated by British subjects, or in ships of the country where the goods were produced; also these laws prohibited the export to foreign ports of any goods produced in the American colonies, except in British ships.[1] Our own Federal law regarding the coasting trade is of the same genus. This law requires that "no merchandise shall be transported by water, under penalty of forfeiture thereof, from one port of the United States to another port of the United States, either directly or via a foreign port, *or for any part of the voyage*, in any other vessel than a vessel of the United States."[2]

[1] See Lindsay, *History of Merchant Shipping*, London (Low, Low and Searle), 1847, Vol. II, pp. 182–189.

[2] 30 Stat. L. ch. 26, p. 248. Referred to in the Report of the Commissioner of Corporations, on *Transportation by Water in the United States*, Part

Such navigation acts are closely analogous to protective tariffs. Like protection, they develop the favored home industry by excluding foreign competition, not, as in the case of the bounty, by providing funds to help meet this competition. Like protection, these laws can do no more than guarantee home patronage; they can not insure successful invasions of other commerce, dependent solely on foreign patronage. As with protection, the burden of these laws rests upon consumers (of goods carried in the protected ships), rather than upon taxpayers as such. The burden rests upon consumers, because the exclusion from the designated commerce, of ships presumably able to carry goods more cheaply than the favored domestic ships,[1] tends towards high transportation rates, and, therefore, towards higher prices to consumers, of goods carried, or towards decrease of domestic commerce, or both. The burden of such a policy may not be equally distributed over a country enforcing it, but may rest with especial weight upon those sections of the country which, being on or near the coast line, have most to gain from cheap water transportation. A navigation policy like that established by the historic navigation laws of England, above mentioned, may also tend, by increasing transportation costs, to limit the export trade of the country adopting such a policy. Only in case other countries have no available alternative source of supply for goods desired, can the extra cost of

I, 1909, pp. 118, 119. Since the above was written, Congress has passed a law (August, 1914) admitting foreign-built ships to American registry if owned or purchased by Americans (See *New York World*, Aug. 18, 1914). Such vessels were not previously ranked as American and had to sail under alien flags. But the new law does not permit foreign-built ships to engage in the coasting trade.

[1] If the latter carried goods more cheaply, they could drive out foreign rivals without legal aid.

carrying these goods rest as a burden on the consumers of those other countries.

The main argument against navigation laws is the same as that against protection. Like protection, it diverts labor and capital from lines which they would otherwise follow, into relatively unprofitable lines. These laws are, therefore, as indefensible, economically, as are protective tariffs. Where navigation laws would be likely to develop a national marine, able, eventually, to compete in the world's commerce successfully without aid, there is a reasonable probability that conditions are favorable to this success and that it would be attained in time without government coddling. Where, in spite of navigation laws intended to develop a national marine, ability to compete outside of the protected limits is never attained, the protective laws involve a continuous burden on the general public. Whatever military justification may exist for such protection to national navigation, economic justification is usually absent, and is probably always of doubtful weight.

§ 2

Subsidies to Native Shipping

Another method of encouraging a national mercantile marine is that of paying so-called shipping subsidies. Shipping subsidies are simply bounties paid to the shipping industry. What was said in Chapter VII (of Part II) regarding bounties applies, therefore, to shipping subsidies. Like bounties and like protective tariffs, shipping subsidies divert national industry out of its natural lines into a line which, without such encouragement, it probably would not follow, or which it would not follow to

the same extent. Unlike protection, subsidies do not exclude foreign competition, but simply endeavor, by money payments, to make it possible for the national marine to meet this competition. As with other bounties, therefore, the burden falls upon taxpayers, rather than upon shippers or ultimate consumers. The two last classes may even gain somewhat, if a subsidy is sufficient to cause lower freight rates in spite of the greater cost of transportation in native ships. But even these classes will gain nothing if a subsidy is just high enough to enable native ships, previously unable to compete, to charge rates no higher (and no lower) than those charged by foreign ships.

One of the cruder arguments for subsidies, as for protective tariffs, is to the effect that when we patronize foreign vessels we have to send our money abroad, and that we would "save" this money if we carried the freight in our own vessels. As a matter of fact, money is not the one thing for which trade, in the last analysis, is carried on. Furthermore, if money flows out unduly, it thereupon begins to flow back again, in accordance with the principles which we have so often set forth in previous chapters.[1] As regards the most economical directions of industrial and commercial development, it should be apparent that if British or other ships can carry goods more cheaply than our own merchant marine, then our labor may better be devoted to the lines where it yields greater returns, to services which others cannot so well perform for us, to our factories, farms, mines, and railroads. If American labor is more profitable when devoted, for instance, to the running of railroad trains, then it is poor economic policy to draw it, by subsidies, into the running of ships.

[1] See, for example, Part I, Ch. V, §§ 6, 7, 8.

Another argument for subsidies is based on the assertion that "trade follows the flag." This assertion, used in relation to subsidies, suggests that a national merchant marine acts as a species of advertisement, that, for example, the American flag flying at the mast head of a merchant ship will stimulate a desire in South America or elsewhere, to examine, and, therefore, eventually to buy, American goods. Except for purposes of advertisement, foreign ships serve as well to carry American goods to market as do American ships, and better in proportion as they carry these goods more cheaply.

Probably there is some advertisement for a country's goods in the ubiquitousness of its merchant ships. Yet we must beware of exaggerating the amount and the value of this advertisement, and of overlooking its cost. France has made considerable effort to develop shipping and has hoped thereby to develop foreign commerce, while the United States has done almost nothing to stimulate foreign trade in American ships; yet a practically stationary foreign commerce of the former country has been contemporaneous with an extensive growth of the commerce of the latter.[1] "The history of the world's commerce seems to show conclusively that the nationality of ship owners is quite a secondary matter in the development of trade." [2]

So far as the presence of a nation's ships, *e.g.* American ships, on the high seas and in foreign harbors, really tends by its advertisement to stimulate American export trade, it would seem that the persons having to pay for this advertisement should be those who expected to reap special gain from it. Why should not merchants

[1] Meeker, *History of Shipping Subsidies* (in publications of the American Economic Association, August, 1905), p. 213. [2] *Ibid.*

and manufacturers who are interested in exploiting the trade of any part of the world, and who seriously think that the presence there of vessels flying the American flag will bring them a larger market, be willing to subscribe to the stock of American lines, or pay a little extra to have their goods carried in American vessels, or both? Is it not possible that American merchants and manufacturers will not do this to any great extent, because the gain would be so small as not to equal the cost? Hard-headed business men spend a great deal of money in advertising. Some of them are enthusiastic over the assumed gains of this particular kind of advertising if it is proposed that it shall be done at public expense by means of subsidies. But would they consider the rather problematical results of such indirect and indefinite advertising worth paying for out of their own business profits? By the subsidy method, many persons and many sections of the country are taxed to secure results which may be of little or no benefit to them and which are probably of not very much benefit to any one.

Another argument in favor of subsidies is one that corresponds to the infant industry argument for protection. It is urged, in this view, that subsidies should be given to divert industrial and commercial activity more largely into shipping, in the hope that the merchant marine will develop in efficiency until it is able to stand alone. An important counter-argument is the fact that no one is able to foresee with any certainty whether or not the shipping industry ever can stand alone and that legislators are less likely to risk the public wealth wisely than business men are to risk their own. There is great danger that subsidies, once started, would continue indefinitely on the plea that they continued to be

necessary.[1] And if, as a consequence of a subsidy system, the national mercantile marine should become larger, though at the general expense, then the political pressure to maintain the subsidy system would very probably become greater. It is altogether too probable that if the giving of subsidies is generally recognized as a proper function of government, men who would otherwise devote themselves to planning improvements and to seeking real progress in efficiency, will instead devote themselves to influencing political action, in order that they may get, or maintain, or increase, a subsidy.[2] This method of acquiring gain is not consistent with the ideal of industrial and commercial morality. Industry and commerce should be so organized that profits will be made only by serving the public, and that profits will be large to any person or firm in proportion as that person or firm serves the public well. The prosperity of those engaged in operating a nation's merchant marine ought not to be made dependent upon their political influence rather than upon their economic service.

Apart from purely economic considerations, shipping subsidies are sometimes urged as a means of increasing a nation's naval strength. Two principal naval reasons are commonly given for the maintenance of a merchant marine, even at the expense of a subsidy. The first is the desirability of having a "naval reserve" made up of large and swift merchant steamers suitable for conversion into cruisers, colliers, and transports, should need for such arise. As a matter of fact, it is only as colliers and transports that such vessels are likely to be useful, since ships of war are nowadays highly specialized, and

[1] Meeker, *History of Shipping Subsidies*, p. 81.
[2] *Ibid.*, p. 216.

merchant vessels cannot, economically, be made over into cruisers.[1] The second reason is the desirability of having experienced seamen from whom to recruit colliers, transports, and additional fighting ships when war threatens, to replace those killed and wounded, to hold captured vessels, etc.

These objects may be perfectly justifiable, even laudable, in themselves. And it may be cheaper to pay subsidies to certain lines, thus helping to keep them in ships and men capable of emergency use by government, but letting them be mainly supported by commerce, than to support, continuously, and wholly at public expense, a larger naval force. But if the policy of subsidizing ships appears necessary to us for military reasons, we should frankly recognize that this policy involves an economic loss, that it is an expense borne for the same purpose as the expense of maintaining a navy. We should not deceive ourselves into the belief that the subsidizing of ocean navigation is an economically profitable policy. We should therefore aim to get the largest military result possible at the smallest possible cost. Large payments to swift mail lines and possibly to certain other ships constructed for speed and carrying capacity and conforming, in other ways, to possible emergency requirements, mark the limit beyond which we should not go in subsidizing, even if we should go so far. Subsidies granted according to these principles are payments for certain definite services or potential services, and are not to be classed with subsidies granted for purely commercial reasons.

[1] Meeker, *History of Shipping Subsidies*, p. 215.

§ 3

Indirect Subsidies, Favoring Native Ships as Compared with Foreign Ships

A country may try to extend and develop its own merchant marine, to the consequent decrease (or slower increase) of the number of foreign ships, by indirect as well as by direct subsidies. Any service which a country, through its government, performs for its own ships without pay, while charging foreign vessels for it, is equivalent to a money subsidy.

Were it not for clear treaty obligations, there would probably be, in the United States, as strong a demand for free use of the Panama Canal by all of our American merchant ships, as there has actually been for its free use by American vessels engaged in the coasting trade.[1] To let American vessels use the Panama Canal free would be equivalent to a money subsidy, because it would amount to the same thing as to make a charge for the use of the canal and then to make a payment equalling this charge, to American shipping interests. In either case, the taxpayers of the nation would bear a burden, or lose a chance for lower taxes, that special interests might be encouraged. For if letting American ships use the canal free would mean that the canal could never pay a reasonable return on its cost, then taxpayers must meet the deficit by taxes paid to government over a series of years, in order to liquidate, or at least pay interest upon, the indebtedness caused by building. If, on the other hand, though all American ships used the canal free of tolls, the amounts collected from foreign

[1] For a discussion of the economic advisability of giving American coasting lines this special privilege, see § 4 of this chapter (VIII of Part II).

ships would suffice to pay interest on the debt contracted, still this interest might be had and more besides, were the American lines also made to contribute.[1] In other words, to allow American ships free use of the canal must, in any case, mean either a loss or a smaller net revenue yielded to the government than might otherwise be yielded. If the canal is to yield the nation a revenue because of its use by foreign ships, that revenue should be used to lighten the burden of taxation on the whole people; it should not be used to encourage a single industry by giving it something for nothing. Thus to encourage American shipping would be to give it an artificial advantage over other American industries, and would be, in so far, to interfere with the tendency of labor and capital to engage in the industries really most profitable for the nation. There is no economic gain[2] in having our commerce carried in American ships if foreign ships are able to carry it more cheaply. Nor would the prosperity of the nation as a whole, including those who bear the burden of taxation, be so much furthered by having our commerce carried in American ships which could pay little or nothing for the use of the canal, as by having it carried in foreign vessels which could pay a reasonable amount for its use without charging correspondingly higher transportation rates. Assuming these to be the relative abilities of native and foreign vessels,

[1] It is not intended to assert that either American or foreign ships should be charged exorbitant rates. Such rates on ships carrying American commerce, of whatever nationality the ships might be, would tend to discourage this commerce, even when it could pay the proper costs of its own movement and would therefore be profitable. As to the effect on American welfare of exorbitant rates charged ships not carrying American commerce, see footnote at end of this section.

[2] Unless we assume a gain from the advertisement thus secured. See § 2 of this chapter (VIII of Part II).

the foreign vessels would be a more economical means for us of carrying our commerce than our own; for them to carry it would mean either lower rates and, therefore, lower prices to consumers and higher prices to producers, or larger returns to the government, favorable to taxpayers, or both such lower rates and higher prices; for them to carry our commerce would mean gain to our people as producers and consumers, or as taxpayers, or as both. It would be desirable, therefore, for our capital and labor to seek other kinds of activity; but this is just what discrimination in the rates charged for use of the canal would prevent.[1]

§ 4

The Free Use for Navigation of Government-built Canals

Since to give free use of the Panama Canal to all American ships and to no others, seemed clearly to involve a violation of treaty obligations, Congress was content, in the Panama Canal Act of 1912, to confer this privilege only upon American ships engaged in the coasting trade. Even this lesser tolls exemption appeared to many to be a violation of treaty rights; and the law has recently,[2] at the request of President Wilson, been changed in this regard so as to require the same charges from American coasting vessels as from all other merchant ships. We shall discuss, here, the possible eco-

[1] Were we to plan, intelligently, so to discriminate in rates charged for use of the Panama Canal, as to pay for it, as largely as possible, at the expense of foreigners, we would base the discrimination on the sources and destinations of goods carried, rather than on the nationality of the ships which carried them. Goods going to and from the United States would be allowed, perhaps, to pass through the canal at fairly low rates, lest American consumers or producers be unduly taxed; while goods going from one foreign country to another would be charged the highest rates possible to collect.

[2] June, 1914.

nomic effects of tolls exemption for American coasting ships. As we have already seen,[1] the Federal government assures American vessels a monopoly of the coasting trade, including the trade from any port of the United States to any other port, *e.g.* from Baltimore to San Francisco. Free use of the Panama Canal by American vessels engaged in the coasting trade could not, therefore, increase our mercantile marine at the expense of foreign rivals in the trade. The primary effect of free tolls to this special class of ships would be to reduce the expense of coast to coast trade, and therefore, supposedly, to reduce rates. Possibly foreign vessels could carry at the lower rates, even without free tolls. If the coasting trade were open to foreign ships, the effect of discrimination in favor of American vessels engaging in this trade might simply be that the American ships would be able to get part of the trade away from their foreign competitors, at substantially the same rates. As it is, such free tolls would tend to make rates lower than they would else be, though much of the saving might be diverted to the owners of monopolistic navigation companies. Hence traffic would be encouraged to go through the canal, which otherwise would not.

The construction of a canal across the Isthmus of Panama, to be used without charge by American coasting vessels, would therefore mean that traffic from the East to the West, and *vice versa*, which is not worth the whole cost of carrying, might nevertheless be carried at the expense of the tax-paying public. If it is worth $5000 to get certain goods from New York to San Francisco, and the cost of carriage, including proper payment for all necessary facilities, is $6000, and if this cost is

[1] § 1 of this chapter (VIII of Part II).

covered by the charge made, the goods will not be sent. It will be more economical to have a greater degree of local self-sufficiency and less geographical division of labor. But if the taxpayers should contribute more than $1000 in the form of maintenance and running cost of the canal, and interest on its cost of construction, then the goods would be shipped, for the charge to the shippers could be made less than $5000. The total cost would be $6000 and the total gain would be $5000. There would be a real net loss. But this loss would be borne by the taxpayers, and therefore the traffic would be carried.

Again, the encouragement of the coasting trade by the building of an Isthmian ship canal to be used by coasting vessels, free of charge, might mean that goods would be carried by water or partly by water, at the taxpayers' expense, which might be more economically carried by rail. Suppose that a quantity of goods can be shipped from New York to Salt Lake City by rail for $4000, including a proper allowance for wages of employees and something towards profits. Suppose that, at the same time, the cost by water and rail, including risk, damage, longer time in transit, maintenance cost of the canal and interest on canal facilities provided, is $5000. $1000 may be saved if the goods go by rail, and to make them go by the other route, if we include interest on the cost of partly constructing this route for them, maintenance expenses, etc., would be to waste $1000. The community or the nation would be so much poorer, yet if the government were to provide the $1000 or more in the form of canal facilities paid for, eventually, by the taxpayers, shippers would gain by using the waterway route.

It is not asserted, of course, that all goods ought to pay in the same proportion to use the canal, if discriminations should prove to be practicable. If the plant is incompletely utilized, it may not be improper to let some goods go through for comparatively low rates, provided they would not otherwise go at all. But no goods ought to be allowed to go through which cannot pay at least a fair share towards running expenses, wear and tear from use, and (probably) a little towards interest. And the canal should not have been built (military considerations aside [1]), unless it was expected that the traffic through it, as a whole, would be enough cheaper to pay interest on it. To build it, if it could not be made to pay, was economic waste, was, as above pointed out, to encourage transportation not really worth its total cost to the people. Now that the canal is completed, it would be unfair to the American people as a whole that the traffic which goes through it should not, if possible, pay for it, that those who realize the chief benefit should not contribute in proportion to the benefit realized.

Here, as in the case of protection, we meet the possibility that government interference with the direction of industry may affect differently the people of different sections, benefiting some at the expense of others. It is obviously only that part of our population living on or reasonably near the coast, which has much to gain from subsidizing, directly or indirectly, coast to coast water transportation. Those living in the far interior will, in any event, have to rely mainly on other means of transportation. Yet by the scheme of indirect subsidizing under discussion, but which has, fortunately, been aban-

[1] As a matter of fact, it is hardly to be doubted that economic considerations had great weight in inducing its construction.

doned, those in the interior would be made to contribute to the cost of facilities of transportation which others use and which they cannot use in the same degree.[1]

The principles above elaborated apply equally when government builds canals in the interior, if traffic is allowed to use these canals free of charge. New York State is now enlarging the once busy and profitable Erie Canal at an estimated cost of not less than $100,000,000, in order that it may carry barges of 1000 tons capacity from the Atlantic Ocean to the Great Lakes and *vice versa*. The plan is to charge nothing for the use of the canal. This will mean a burden on the taxpayers of the state, an uncompensated loss to the taxpayers in those parts of the state which cannot economically use the canal either to market their produce or to obtain goods for consumption. It amounts to a gift by the taxpayers of the state of New York to those producers and consumers in other states, who can sell their products for more or buy desired goods for less, because of the free use of the Erie Canal. It involves encouragement to transportation via the canal of goods which might better go by railway or by the St. Lawrence river. If the traffic which is expected to use the canal would be able to pay the cost of operation and maintenance, and interest on the $100,000,000 or more sunk and to be sunk, then it should be charged this cost and interest, to the end that those who reap the benefit of the canal in lower cost of carriage, and in prices of goods higher to producers and lower to consumers, shall pay for the advantage so se-

[1] An excuse for such discrimination against dwellers in the interior might perhaps be found in the fact that those living on the coast chiefly bear the burden resulting from the limitation of the coasting trade to American vessels. Two policies, each tending towards economic waste, would partially offset each other as regards inequality of effect.

cured; and that those who reap the most gain shall pay the most; and to the end that the burden shall not fall upon the general public without any regard to proportionate use and to benefits received.[1] If, on the other hand, it is not believed that those using the canal can meet such charges and still find it profitable to carry goods over it, then we must conclude that the canal ought not to be (or, in part, to have been) enlarged, since the total expenses, including cost of this enlargement, of carrying goods over it, will probably be greater than the benefits to be received from transporting the goods, or will be greater than if the goods were carried over another route, *e.g.* a railroad.

Before the days of railroads, much confidence was felt in the possibilities of canals. A number of our states expended a great deal of money in canal building. To-day it is generally recognized that, since the capital cost of canals is a tremendous initial expense, railroads are generally cheaper. Only in a comparatively few cases can canal building be expected to pay. These are, first, cases where the canals connect navigable waters located near to each other, and between which, if they are connected by a canal, there will be large traffic; second, cases where comparatively short canals, like the Suez Canal, save a very great sailing distance and so are extensively used; third, cases more doubtful, where short canals connect with the ocean, great cities which have grown up not

[1] It is no sufficient answer to this contention to cite the usual practice regarding our numerous streets and roads. To charge tolls, individually, on each person as he used any given street, would obviously be an intolerable nuisance. These facilities we must have, anyway, and substantial justice may be secured, if care is taken to avoid extravagance, by levying on local property owners according to some fair system. Since land values depend largely on streets, etc., it may be possible, by basing assessments or taxes on land values, to make costs to different persons vary, on the whole, in proportion to benefits.

far from it.[1] "Practically all the canals now in most successful use are ship canals, forming comparatively short links between important natural waterways, and opening up extended routes of transportation by water for large vessels. Such short-link ship canals are to be clearly distinguished from long inland canals, and the success of the one offers no safe criterion as to the probable success of the other."[2] Moulton's study of the much vaunted waterway system of Germany seems to provide conclusive evidence that canals are as cheap as railways for shippers, only if the taxpayers, in effect, help pay the freight, and that, in general, canals and canalized rivers involve tremendous loss to the nation which undertakes their construction, and are therefore a source of industrial and commercial weakness rather than of strength.[3]

If there were adequate reason to believe that canals, generally, were cheaper and more satisfactory means of transportation than railroads, it would not be necessary to have public agitation and political pressure to get canals built. Private companies would undertake to build them for profit, just as they build railroads for profit, and just as canals were built, in England particularly, before the days of railroads.[4] As a matter of fact, investors are not clamoring for a chance to buy the securities of such companies, nor are promoters eagerly looking for opportunities to project new lines. When the build-

[1] Preliminary Report of United States National Waterways Commission, 1911, pp. 13, 14. Reprinted in Final Report, 1912, pp. 75, 76. See, however, as to an example of the third class of cases, viz. the Manchester Ship Canal, Moulton, *Waterways versus Railways*, Boston and New York (Houghton Mifflin Co.), 1912, Ch. VII.

[2] Report of Commissioner of Corporations on *Transportation by Water in the United States*, Part I, p. 45.

[3] Moulton, *Waterways versus Railways*, Chs. IX, X.

[4] *Ibid.*, p. 99.

ing of canals is mentioned favorably, the assumption is always made that taxpayers shall bear the burden, or at least the risk, of building them.

§ 5

The Improvement of Harbors

Water transportation which is not worth its cost, may likewise be stimulated by a wrong system of harbor improvement. In the United States, the construction and care of lighthouses, the building of breakwaters, the dredging of harbors, and the dredging of channels between the sea and harbors, are done largely by the Federal government.[1] It cannot be said that nothing is paid towards the expenses involved, by the traffic aided, since the tonnage dues collected by the government amount to $800,000 or $900,000 a year.[2] But considering the fact that the Federal government appropriates about $5,000,000 a year for lighthouse maintenance alone,[3] and, on the average, appropriates millions of dollars each year for dredging, breakwater construction, etc., the traffic entering and leaving the ports of the United States cannot be said to bear the costs which it occasions. Rather is this traffic, in a considerable degree, subsidized at the expense of taxpayers. As with canals, so with lighthouses and harbors, we must conclude that those who benefit by them should be the ones required to pay for them, and that to place the burden of their construction

[1] Report of Commissioner of Corporations on *Transportation by Water in the United States*, Part III, 1909, pp. 39, 40.

[2] Johnson, *Ocean and Inland Water Transportation*, New York (Appleton), 1911, p. 252. Given in Report of Commissioner of Corporations on *Transportation by Water in the United States*, Part I, p. 404, as $1,076,571.69 in 1908. The coasting trade is free even from this.

[3] *Ibid.*, p. 262.

and support on the general public, with no reference to benefit received, is undesirable and unfair.[1] We must further conclude that constructions and improvements made in harbors, for which the traffic using the harbors cannot afford to pay, involve national economic loss and ought not to be undertaken.

In many cases the money spent in harbor improvements by the Federal government is wholly or partly wasted, for appropriations are frequently made for which there is no economic justification and for which there would be no economic justification even if the largest sums possible were to be realized by charging the users. Such wasteful appropriations are doubtless in part due to lack of business sense among legislators. They are perhaps more largely due to the pressure of local interests. The very fact that these appropriations are so largely made by the central government, and that there is, or seems to be, a chance for interested localities to get something for nothing, results in expenditures which would not be made if the localities particularly concerned had always to provide the means, or if private capital had to be induced to do so.[2]

[1] It is not a sufficient answer to the above argument, to assert that our tariff system taxes trade and that therefore this trade pays for itself by paying for the facilities used. For the burden, nevertheless, does not fall where it properly belongs. It does not fall anything like evenly on all traffic which uses the facilities provided. On some goods the tariff has been, until recently, prohibitive, artificially interfering with normal and profitable trade. On other commerce and on passenger traffic, the tariff duties are little or nothing. Such commerce and traffic may, in effect, be receiving a subsidy, while the remainder of commerce is burdened. The principle of charging the cost of facilities provided, to those who use them and upon different interests in some proper proportion to the benefit received, is not conformed to. We fall far short of the economic ideal when we set up contradictory policies of discouragement and encouragement. These contradictory policies do not exactly neutralize each other, but in one case there is a net loss in one direction, and elsewhere there is a net loss in another direction.

[2] Cf. Preliminary Report of National Waterways Commission, p. 20 (Final Report, p. 82).

A different system, and one which is economically more defensible, is that common in Great Britain. There the central government, except as naval considerations may be involved, does nothing whatever by way of harbor improvement, but leaves this matter to the localities immediately concerned. The British system of harbor improvement and maintenance requires the creation for each harbor of a so-called "public trust" or public harbor trust.[1] A public harbor trust is a semi-public body or a corporation, authorized by parliament, to which body is granted power to own, improve, and manage a particular harbor. It has been compared[2] to the board of trustees of an American university or charitable institution. The members receive no salaries, but regard their position as an honorary one. The composition of a harbor trust is determined by statute. Representatives are usually selected by the British government, the government of the city concerned, boards of trade and chambers of commerce, ship owners' associations, and other interested parties. Money is borrowed for necessary improvements, usually at low rates, for the harbor trust is authorized to collect port and dock charges from vessels utilizing the facilities given, and this power makes the security good, at least in the case of a port sure to have large traffic. Sometimes money is borrowed from the municipality itself. In any case, money needed in excess of what has been collected in previous years from traffic, is borrowed, and must be paid back out of future collections. There are no stockholders, and, therefore, there is no attempt to make a profit above a fair interest and

[1] Described in Smith, *The Organization of Ocean Commerce*, Philadelphia (Publications of the University of Pennsylvania), 1905, pp. 129, 130.

[2] *Ibid.*

sinking fund. Indeed, a private corporation authorized to collect tolls from all the shipping of a port, for the sake of dividends to stockholders, would, unless strictly regulated, be an intolerable monopoly.

But the British system of harbor control does make the traffic pay for the facilities required, and is in so far consistent with the economic principles so wisely applied to British trade and commerce generally. There is no attempt to encourage trade which is not nationally profitable, by partly supporting it, *i.e.* by providing free harbor facilities at public expense and, therefore, at the expense of other lines of economic activity, any more than there is the attempt to interfere with nationally profitable trade by high tariff duties. The public trust unites responsibility with direct action. It furthers efficiency, economy, and lowness of rates, but it does not subsidize.

The function of maintaining lighthouses, however, almost of necessity devolves upon a central government. No city or private corporation is in a position to perform this function and make the traffic benefited pay for the service provided, since much of the benefit will be received by vessels which have no occasion to visit the particular city or to come within reach of the particular corporation. The British government, therefore, maintains the lighthouses, but collects "light dues" in return, amounting to about $2,500,000 yearly, from vessels entering English harbors. These dues pay the entire yearly cost of maintaining the lighthouses and about $250,000 a year besides.[1] Here, also, is no policy of subsidizing, no attempt

[1] Johnson, *Ocean and Inland Water Transportation*, p. 262. If the slight charge above yearly cost is criticised, it should be remembered that a reasonable return on investment is not an improper aim.

to foster one industry at the taxpayers' expense, or to encourage an undue and uneconomical geographical division of labor.

§ 6

The Improvement of Rivers

The responsibility for the improvement of rivers, like that for the improvement of harbors, has rested, in the United States, chiefly with the Federal government. The work done has included the removal of obstructions to navigation, the deepening of channels by dredging, the construction of revetments, and the development of slack water navigation by the building of locks and dams to maintain a navigable depth. Improvements of this sort have been carried out, to some extent, on most of the navigable rivers of the country. But the appropriations of Congress for these purposes have not always been wisely made, nor has the distribution of improvements throughout the country been influenced solely by commercial or economic considerations.

Let us notice one or two typical instances of Federal activity in river improving. To improve the Mississippi river, the government has spent, in all, more than $90,000,000.[1] Of this amount, $15,000,000 has been spent on the 200 mile stretch between the mouths of the Missouri and Ohio rivers.[2] But the traffic on this stretch of the river, including that of St. Louis (which is located between these points near the Missouri), has steadily decreased. In 1880, upwards of a million tons

[1] The Report of the Commissioner of Corporations on *Transportation by Water in the United States*, 1909, Part I, p. 47, gives $97,685,920.

[2] The facts and figures in this and the next paragraph are taken chiefly from an article by Herbert Brace Fuller, in the *Century Magazine*, January, 1913, pp. 386–395, entitled "American Waterways and the Pork Barrel."

of freight were shipped from St. Louis. In 1900, the amount aggregated only 245,000 tons, and in 1911, only 191,965 tons. Is it safe to assume that there has been so much saving in the expense of carrying this traffic, as compared with what it would have cost to carry it by rail, or to carry it on the unimproved river, as to compensate for the money sunk? Would those who have used this section of the river have been willing to invest, jointly, the $15,000,000, in order to have the better navigation conditions which that investment has made possible?

If there remains any doubt in this case that money has been unwisely spent, there can be no doubt in other cases that public funds have been wasted for the sake of returns to private interests and to limited territories, almost incomparably less than the general loss. The Big Sandy river is a tributary of the Ohio river. The Big Sandy and its two branches or tributaries, the Tug and Levisa rivers, lie in Kentucky and West Virginia. On their improvement, the Federal government has spent, in all, about $1,700,000. Excluding timber, which can be and commonly is floated down-stream, the average yearly traffic on these rivers is about 2000 tons. Reckoning interest on this $1,700,000 as only $40,000, or less than 2½ per cent a year, the annual cost to the United States of providing facilities for this traffic is $20 per ton a year. Adding $20,000 a year for maintenance, we have a cost of $30 a ton.

Average railroad charges in the United States are considerably less than one cent per ton mile.[1] For low grade freight (the only kind which makes much use of

[1] Statistics of Railways in the United States, Interstate Commerce Commission, 1910, p. 59.

inland waterways) going long distances, railroad charges average very much less than this, probably markedly less than a half cent. The facilities provided by the government on the above mentioned three rivers would, therefore, have to reduce the transportation cost upon them to zero, in order that the construction or investment by the government should be proved worth while, unless the traffic benefited moved an average distance of over 6000 miles. For even at zero cost of carriage, each ton carried one mile would secure a saving of but one-half a cent. And unless it were carried 6000 miles, the total saving would not amount to the $30 interest and maintenance cost.

What is the reason for the numerous appropriations of this sort made by our government? A partial explanation may be found in the current American practice of donating to commerce the improvements made, and letting the general public bear the burden in indirect and, therefore, hardly realized taxation. Commercial interests are the more ready to plead for comparatively useless dredgings, revetments, and canalizations, because, however small the benefits are, they reap these benefits, and because, however heavy the cost is, others mainly bear it. Any reform which goes to the root of the evil must espouse the principle of making those contribute most to the fixed charges and maintenance costs of navigation improvements, who chiefly use those improvements and to whom their benefits chiefly go.

A further partial explanation is suggested by noting the distribution, throughout the country, of money appropriated for waterways. In the general River and Harbor Act of 1910, appropriations were received by 296 congressional districts in the United States, out of a

total of 391,[1] in other words, by over three-fourths of such districts. Apparently the appropriations were given to nearly every district in which there was a stream or harbor offering any excuse for expenditure. This River and Harbor Act illustrates what has been called the "pork barrel" system of waterway development.

The difficulty is one which seems to apply generally to the activities of a democratic government. A despotic or aristocratic government is based on the privilege of special persons or classes. It governs largely in the interest of legally privileged classes. It insures to those classes, political and economic privileges maintained at the expense of others. Such a government was that of France before the Revolution. Such is that of Russia to-day. In the case of a popular government and an intelligent people, privilege is probably less excessive, and its forms less obnoxious. But there may still be, especially if the government carries on industrial functions or interferes at all with the natural laws of trade, the privilege which comes from bargaining. One class wants a special kind of tariff law, adverse to the public interest. Another class desires legislation subversive of currency stability, also contrary to the general welfare. The representatives of each, in Congress, may support the desires of the other, in return for counter support.

The evil shows itself most of all, perhaps, through the influence exerted by localities or by special interests in different localities. We have noted this particularly in the case of the protective tariff.[2] And just as, in the case of the tariff, congressional representatives from

[1] Fuller, *American Waterways and the Pork Barrel, loc. cit.*

[2] Chapter VI (of Part II), § 6.

different states and districts desire, each, to get or keep a high tariff for the goods produced in his district, whatever the effect on the common weal, and sometimes inconsistently with their party platforms, so these representatives desire appropriations of money to improve waterways, each for his own district, even though the cost to the country as a whole far exceeds the benefit, and even though each district suffers more from its forced contributions to improvements in other districts, than it gains. There is, consequently, a process of "log-rolling," so-called, in which A votes for B's project in return for support of his own; and the ultimate result is an appropriation or set of appropriations having no consistency and involving general loss.

Each Congressman thus acting, feels that he is gaining favor with his constituents. The persons interested in local waterway constructions make representations to him regarding the importance of them. He feels that the people of his district are not concerned primarily in having him act the part of a wise and conscientious legislator, careful not to waste the nation's resources, but that they are concerned rather in having him "do something" for them. If he succeeds in getting what is desired, the newspapers of the district publish the fact that, through his influence, Congress has been led to appropriate a sum to improve navigation on the local stream or to deepen the local harbor. The fault is not alone that of the Congressman who, under such circumstances, does the thing which he believes his constituents desire, but is also largely the fault of those constituents themselves, whose selfish local interests overshadow in their minds the greater interests of the nation of which they are a part, and whose limited intelligence will not let them see

that the system practised is likely, in the end, to hurt more than to help even their own welfare.

It would seem, then, that a reform which would go to the root of the difficulty must not only insist upon the attempt to charge users rather than taxpayers, for facilities provided, but must also insist that the entire first cost and risk of constructing these facilities shall not fall upon the nation as a whole. If government expenditure rather than private investment is thought to be necessary to improve certain waterways, at least the government expenditure and risk should be partly borne by localities most directly concerned. If such localities will not support certain improvements, themselves, they should not expect the nation to do so. If the nation refuses to bear the burden alone, but insists, always, upon local aid, there will be far less pressure for Federal appropriations, and many wasteful expenditures will be avoided.[1]

§ 7

Subsidies to Railroad Building

The subsidizing of transportation, by government, has extended, in the United States (not to mention other countries), to railroads also. The railroads of the United States have, it is true, been built pretty largely with private capital, but they have also received aid from the national government, from many of the states, and even from county and city governments. The states and local governments, in some instances, invested in railroad securities, so enabling the roads to get capital

[1] Cf. Preliminary Report of National Waterways Commission, pp. 19, 20 (Final Report, pp. 81, 82). See also Report of Commissioner of Corporations on *Transportation by Water in the United States*, Part I, pp. 8, 59, for reference to European practice.

which, perhaps, private persons would have been less ready to provide. But the Federal government, in addition to making loans, made very extensive land grants to companies constructing numerous desired lines,[1] chiefly in the less densely settled parts of the country, the West and Southwest. The grants made between 1850 and 1871 turned over to the railroad companies about 159 million acres of the public domain, an area exceeding five states the size of Pennsylvania.[2] So far as the land grant policy was based on military conditions, we cannot judge it on economic grounds alone. But so far as it can be regarded as a commercial policy, it can be judged in the light of commercial principles.

We shall not, of course, be able to decide, absolutely, whether the land grants and other government aid to the railroads actually decreased the total of national wealth. So to decide, we should have to know not only what has happened, but just what would have happened if business and transportation development had taken its natural course. But we can lay down general principles of usual application, which, in the long run, are apt to be safest to follow.

To begin with, it must be admitted that there is such a thing as undesirable transportation. The labor and capital of a country should be applied in order of pref-

[1] See, on this subject, Haney, *A Congressional History of Railways in the United States*, Vol. II. The Railway in Congress: 1850–1887, Madison, Wis. (Democrat Printing Co., State Printer), 1910, Chs. II, III. Also Sanborn, *Congressional Grants of Land in Aid of Railways*, Madison (Bulletin of the University of Wisconsin), 1899, Chs. VI, VII. A good brief account is in Johnson, *American Railway Transportation*, 2d revised edition, New York (Appleton), 1909, Ch. XXII.

[2] Not including land forfeited by failure to conform to conditions. The granting of the mere rights of way might be regarded as analogous to the granting of farms to actual settlers. But the granting of millions of acres additional cannot be so regarded.

erence to different industries according to their relative importance, according to the relative need for them. In other words, the people should devote their efforts to the lines which pay best. It may be said that the people living in the Middle West and Far West, where railroad building was encouraged by government more than in the East, desired railroads as a means of reaching eastern markets. But the mere existence of railroads leading to markets does not in itself mean greater prosperity, since the benefits so received may be appreciably less than if the same capital were invested in some kind of productive enterprise for immediate local needs. Unless the trade made possible by a railway brings as much wealth and prosperity as could have been had by foregoing the trade and producing more locally, unless, that is, as much of desired wealth is produced by the railway as would be produced were the labor and capital applied instead to the farms and ranches, to building houses, making furniture, etc., the building of the road is not economy for the community. If a railroad when constructed will yield the people of a community a benefit equivalent to what the same investment would yield in another line, then those who receive this benefit can afford to pay, for the use of the railroad, a proper return on the capital invested. If they cannot afford to pay such a return, it must be because they are not receiving a correspondingly valuable service and, therefore, it must be that the capital invested in the railroad is not producing the value which it might have produced if invested otherwise.

If the territory through which a railroad is desired is sparsely settled and would offer but small traffic in proportion to trackage, thus only very partially utilizing

the plant of the railroad, then high charges would be required, in order that the railway plant might pay to the owners the average rate of profit on investment. But high charges may be as serious preventives of reaching markets as absence of railroads leading to markets. If, therefore, only small traffic can be hoped for, it may be truer economy for the territory concerned and the various communities in it, to be more self-sufficient, to depend more exclusively on natural waterways, or to carry goods by using horses and vans, than to build a railroad.

The people of a given section of the country may think that they gain nothing by having an incompletely utilized railroad, if they have to pay, in high freight and passenger rates, interest on its cost. They may not be prepared to patronize such a road, feeling that the service is not worth the charges. Yet if the road is paid for in part by government aid, even though they have to pay the taxes that make the aid possible, they may delude themselves into thinking that they are gainers by having the railroad. Nevertheless, the people are paying for the service rendered just as surely by this method as by the other, and if it is unprofitable for them to pay the amount in the one way, it is unprofitable to pay it in the other. The chief difference is that if government supports the enterprise without receiving any corresponding return, the cost of the service rendered is paid for by the people without any regard to the proportionate benefits received.

If the assistance is by grants of land, the essential principle of the policy is the same. The public domain belongs to the whole people. It rests with them to give it to settlers, to keep it as forest reserve and for other

purposes, or to secure money revenue by selling it. To contribute it to railroad companies is as much a cost as to contribute the equivalent in money.[1]

As a consequence of the land grant policy, capital was diverted to transportation purposes which might have yielded larger returns in agriculture or in manufactures. In so far as the policy had this effect, it lessened rather than increased national prosperity. Because of the land grant policy, also, population tended to be diverted towards the Middle and Far West, while there was still room in the East, South, and Central states. As a result of this diffusion of population, goods were probably carried by rail over longer distances than would have been necessary had population been for a time more concentrated and had its extension westward been more gradual. Had the westward movement, except that by water to the Pacific coast, been slower, a shorter connection could have been kept by the near frontier with the more densely settled parts of the country, and the necessity of long hauls of meagre traffic through undeveloped sections could have been, in part, avoided. It is doubtless true that some sections of the West are exceptionally rich and fertile, as some are exceptionally mountainous or arid. That the former should eventually hold a large population was both unavoidable and desirable. But that the movement westward should have been artificially hastened, at the cost of millions of acres of the public domain, at the cost of diverting labor from other industries into transportation, at the cost of unnecessary distances in transportation, and at the cost of building railroads in advance of traffic, ought not to be too readily taken for granted.

[1] See, however, considerations later in this section, especially in footnote.

As some parts of the country presumably gained by the policy, so other parts probably lost wealth. Many of the eastern farmers, for instance, found themselves disadvantaged by competition with producers of the West. So far as western farmers, by virtue of natural advantages, were able to undersell the farmers of the East, the result was economical and beneficial. But so far as western farmers were, in effect, given bounties, by having transportation provided in part at national expense, the result may very well have been a national loss. If the prosperity of the government-aided western farmer was increased, that of the eastern farmer was decreased. If the value of western land was raised, that of eastern land was lowered.[1]

One type of municipal or local aid deserves particular mention. This is aid which is made conditional on the choice of a route through the town or city giving it. Such aid introduces an uneconomical basis (from the social point of view) of calculation into the choice of a route. The route selected is less apt to be the one which, all matters of traffic and expense considered, is most profitable, and, therefore, socially most desirable, but is apt, rather, to be a route favored by the largest promises of local aid.

[1] To the argument that the government so raised the value of the remainder of its own land, it can be answered that it is not the business of a government to depreciate the land of citizens in order to raise the value of public land. If the principle that land rent is largely a social product and belongs mainly to the whole people, were commonly accepted, depreciating some land to raise the value of other land would appear clearly to be uneconomical. It is probable, in the case under discussion, that enough railroads would soon have been built, and that the government, even in the narrow sense here used, lost more than it gained by making the grants.

§ 8

Summary

Let us now briefly restate the principles set forth in this chapter, regarding government interference with and encouragement of transportation. Navigation laws were first considered. These laws attempt to develop the national merchant marine by excluding foreign ships from certain trade. The United States excludes foreign vessels from the coasting trade. Considered from the purely economic viewpoint, these laws are analogous to protection, and for similar reasons they are economically undesirable.

Shipping subsidies are in the nature of bounties. In general it may be said that they are without economic justification. It may be defensible, however, or even desirable, to make definite payments to certain lines of ships, in order to have a claim to vessels as naval reserves. Subsidies may be indirect, as when certain privileges are given to a nation's own merchant vessels, at the taxpayers' expense, which are denied to the ships of other nations. The purpose of discriminating subsidies, direct or indirect, is not so much to increase commerce as to have it carried in vessels of the subsidy-paying country.

Facilities for transportation are frequently provided by government at the taxpayers' expense. These tend to stimulate commerce which is not worth the expense borne, and which could not pay this expense. Such a policy is unfair to the general tax-paying public and violates the principle that those who gain by any facilities should be the ones to pay for them. Such provision of commercial facilities at public expense would have been the carrying out of the plan to allow United States coast-

ing vessels to use the Panama Canal free. Such provision of facilities at public expense is the plan to have the Erie Canal forever free from tolls. Sections of the country, or of the state of New York, which have little or nothing to gain by the creation of these facilities, would have been, or will be, taxed that other sections might use them toll free. The Federal policy of harbor and river improvement is also a policy of subsidizing commerce, and is, therefore, popular with and favored by the interests subsidized. Like the protective tariff policy, the policy of subsidizing water transportation is partly the result of bargaining between representatives of different districts, each trying to get something at the general expense. The British system of a Public Harbor Trust avoids private monopoly of facilities, but makes the traffic using the facilities provided, pay for them.

Land grants to railways, like other aids to water transportation, are indirect subsidies given to commerce, and, as such, are open to objections. The general rule which it is safest for government to follow, is that those who chiefly benefit by facilities provided for commerce should chiefly pay for them, rather than that these facilities should be paid for by the people in general, without regard to proportionate benefits received.

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